

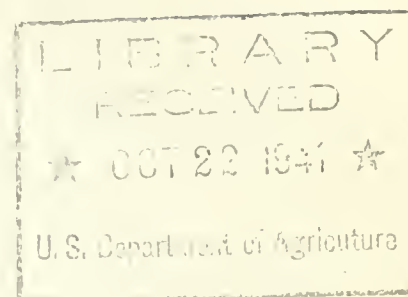
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31B

THE INSECT PEST SURVEY  
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## THE MORE IMPORTANT RECORDS FOR SEPTEMBER

The second generation of Melanoplus mexicanus Sauss., continued to develop in the southern Great Plains area in eastern Colorado, western Kansas, southern Nebraska, and the Panhandle of Texas and Oklahoma. Hatching, which began in August in most of the area, was completed early in September. In the southern portion of the infestation development to the adult stage was completed by the middle of September, though progressively later to the north. Dispersal flights were reported in Kansas and Texas, while general movement of nymphs and adults took place from stubble into margins and fields of fall wheat. Varying degrees of damage to fall-sown and volunteer grain was caused, in most cases, only to margins, though in some fields injury was general.

White grubs caused severe injury to corn in parts of Maine. Similar damage was reported from the remainder of New England and Pennsylvania and westward to Illinois, Wisconsin, and Kansas.

Fall armyworm was generally reported as numerous and destructive from the South Atlantic States westward to Kansas and Iowa. Damage by this insect was also reported from California.

Corn ear worm was unusually abundant in Maryland and Virginia and throughout the Mississippi Valley. Late sweet corn in Oregon was heavily infested. Heavy damage to tomatoes is reported from Utah.

The European corn borer was reported from several counties in Wisconsin not previously known to be infested.

The velvetbean caterpillar severely damaged soybeans and velvetbeans in the South Atlantic States from North Carolina to Florida and around the Gulf to Louisiana, in many cases completely defoliating the plants.

Relatively heavy second-brood infestations of codling moth were reported from the East Central States. Infestation by this insect in Maine was the heaviest in the last 5 years.

The peach twig borer very severely damaged almonds in the Sacramento Valley of California.

Hibernating populations of the plum curculio in the Fort Valley section of Georgia were heavier than usual.

The grape leafhopper produced heavy defoliation of scuppernong grapes from Virginia to Georgia.

Heavy infestation of citrus by the Florida red scale was reported from parts of Florida.

Garden flea hopper was more abundant than usual in the South Atlantic States from Maryland to Alabama and westward to Missouri.

A new species of tomato mite, Phyllocoptes destructor Keif., first recorded in California in 1940, has spread rapidly and is now recorded throughout the Sacramento and San Joaquin Valleys and westward to Santa Clara and Mapa Counties.

The boll weevil situation has not materially changed over that reported last month. Populations are still very high throughout the greater part of the Cotton Belt. In the Gulf States and in the lower Mississippi Valley boll weevil has been greatly reduced on account of defoliation by cotton leaf worm.

Serious damage by bollworm to late bolls is reported from the South Atlantic States to Florida and round the Gulf region northward to Tennessee.

The fall webworm was rather numerous along the Atlantic seaboard from Connecticut to Florida, and in scattered localities from Minnesota to Mississippi.

Rather heavy infestation by the palmerworm on oak and hazel nut over the northeastern half of Minnesota was reported.

The screwworm is being reported in some abundance at Ocala, Fla. The insect was reported from Indiana and Montana for the first time. It was taken from bears in a zoo at San Diego, Calif.

# GENERAL FEEDERS

## GRASSHOPPERS (Acrididae)

Arizona. B. M. Gaddis and assistants (August 31-September 6): Second-generation Melanoplus mexicanus Sauss. and marginal populations of M. differentialis Thos. still presenting problems of control in several sections of the State. The former species causing considerable damage to alfalfa in the Stuart district of Cochise County, the latter to truck crops in the Salt River Valley of Maricopa County.

Texas.<sup>1/</sup> (September 7-13): The second-generation M. mexicanus in the northern and central parts of the Texas Panhandle is about 15 percent adult; however, in the more southern counties it was more advanced, about 35 percent of the hoppers having reached the adult stage. Flights in a southerly direction were reported on September 9 over Childress, Hale, and Swisher Counties. Crop damage was confined chiefly to young wheat. Marginal destruction averaged 15 yards into fields in the more heavily infested counties in the northern part of the Panhandle.

Colorado.<sup>1/</sup> (August 31-September 6): In the dry-land areas of eastern Colorado the heaviest populations of second-generation M. mexicanus were found in the eastern part of Baca County, where they averaged 30 per square yard in weedy environments and 50 in margins. Twenty percent were adult. Small-grain populations in Sedgwick, Phillips, Yuma, Kit Carson, Cheyenne, Kiowa, Lincoln, and Washington Counties averaged 15 per square yard in fields and 30 in margins. In the irrigated areas of Prowers, Bent, Otero, Crowley, and eastern Pueblo Counties populations averaged 50 per square yard in alfalfa and 75 in margins, while in small-grain stubble they averaged 20 in fields and 30 in margins. (September 14-20): Development of second-generation M. mexicanus continued rapidly during the week in eastern Colorado, approximately 70 percent reaching the adult stage and 20 percent the fifth-instar nymphal stage. Grasshopper activity was not great enough to result in appreciable population shifts. Local movement into fall wheat from adjacent stubble and weeds was general, however, resulting in light marginal damage to wheat in fields unprotected by baiting. In the irrigated areas the hoppers had completely defoliated some alfalfa fields.

Oklahoma.<sup>1/</sup> (September 7-13): Approximately 15 percent of the second generation of M. mexicanus in the Panhandle area had reached the adult stage. Seventy percent were fourth- and fifth-instar nymphs. Marginal wheat was damaged in Pecos and Cimarron Counties, especially where wheat adjoined weedy stubble fields. (September 14-20): Second-generation M. mexicanus was approximately 50 percent adult and 35 percent fourth- and fifth-instar nymphs.

Kansas.<sup>1/</sup> (September 14-20): South of the Arkansas River approximately 90 percent of the second generation of M. mexicanus was adult, while north of the river about 75 percent had reached the adult stage. From very

<sup>1/</sup>Where no name is given after the State the report is by B. M. Gaddis and assistants.



light to moderate flights occurred during the fore part of the week throughout western Kansas, from southeast to southwest. Movement of hoppers from stubble into margins of fall-wheat fields was heavy; however, most hoppers concentrated along margins, and field populations averaged less than 10 per square yard. Damage to fall seedings and winter wheat was increasing daily and was estimated at 10 percent of all wheat seeded in the more heavily infested counties—Grant, Greeley, Hamilton, Morton, and Stanton.

Kansas. E. G. Kelly (September 25): It appears that many species of grasshoppers are laying eggs. Second-generation M. mexicanus has been devastating wheat around the edges of fields in the western part of the State, extending into Kansas about three counties deep. M. bivittatus Say and M. differentialis are doing considerable damage to alfalfa and early planted wheat through the eastern half of the State.

Nebraska.<sup>1/</sup> (September 14-20): Approximately 60 percent of the second-generation M. mexicanus was adult and 30 percent in the fifth-instar nymphal stage at the end of the week. Bait was used from Deuel County east to Cass and Sarpy Counties, in the southern part of the State, and also in York, Seward, Polk, Clay, Fillmore, and Hamilton Counties.

Missouri. H. E. Brown (September 26): Practically all individuals of second-generation M. mexicanus are adult. Egg laying by this species has been under way for some days, and at least 50 percent of the eggs of M. differentialis have been laid.

Iowa.<sup>1/</sup> (September 14-20): Second-generation M. mexicanus was reported as rather abundant in the southwestern part of the State.

Utah. G. F. Knowlton, et al. (September 18): Many M. mexicanus and M. femur-rubrum Deg. are still alive and laying eggs at Orem and North Ogden. In general, M. bivittatus has laid its eggs and decreased noticeably in abundance. M. mexicanus, M. packardii Scudd., and M. bivittatus are still abundant at North Ogden and Huntsville, and moderately abundant at Uintah, Eden, and southeast of Ogden, in Weber County. (September 24): Schistocerca shoshone Thos. is moderately abundant in a raspberry patch at Orem.

#### FIELD CRICKET (Gryllus assimilis F.)

Texas. C. B. Nickels and W. C. Pierce (August 10-23): Crickets were a nuisance in business sections of Brownwood, Brady, Coleman, Abilene, and San Angelo. It was necessary to cut off bright lights to avoid attracting enormous numbers of crickets. Dead bodies were so abundant on the streets of Brownwood that it was necessary to wash the streets with a fire hose. (Det. by A. B. Gurney.)

W. C. Maxwell (September 22): Very numerous in the vicinity of Robstown. Quantities have collected nightly in front of buildings, where they were apparently attracted by lights. A smaller species is also present but the larger species is predominant.



MAY BEETLES (Phyllophaga spp.)

- Maine. Maine Agr. Expt. Sta. (August): White grubs have caused severe injury to corn at Norway, and probably in other areas in Oxford County.
- Connecticut. J. Peter Johnson (September 25): Damage by white grubs has been observed recently at East Hartland, East Hampton, Groton, Middletown, New London, Putnam, and Storrs. Many grubs are still feeding in the upper  $1\frac{1}{2}$  inches of soil, although the soil is exceedingly dry.
- Rhode Island. B. Eddy (September 5): The 3-year cycle of white grubs was extremely damaging to a lawn at Exeter School.
- Pennsylvania. E. J. Udine (August 28): A local infestation of white grubs, determined as P. hirticula Knoch and P. fusca Froel., caused considerable damage to sweet corn, potatoes, and timothy in an area in the Bald Eagle Valley, some 7 miles north of Tyrone. The valley at the area of greatest damage was not more than  $\frac{1}{4}$  mile wide between the woods of mountain ranges on either side. A maximum of four grubs per hill was present on one 10-acre field of sweet corn on a steep and rocky hillside. An adjacent field of timothy was also badly damaged. Other cornfields nearer the center of the valley were not seriously injured. (Det. W. H. Anderson.)
- Illinois. W. P. Flint (September 24): White grubs are causing considerable damage to lawns and golf courses in the northern third of Illinois. Injury is being caused by Brood C and is much more extensive than it has been at any time during the last 10 years.
- Michigan. R. Hutson (September 29): White grubs have been fairly numerous at Detroit, Carson City, Holt, Lakeview, Birmingham, and Clarksville, during the month.
- Wisconsin. E. L. Chambers (September 24): White grubs are very abundant in spots over the entire State.
- Kansas. H. R. Bryson (September 22): White grubs were reported as injuring bluegrass at Pittsburg and as abundant in wheat in Marshall County.
- Utah. G. F. Knowlton (September 24): White grubs have damaged lawns at Salt Lake City.

JAPANESE BEETLE (Popillia japonica Newm.)

- Connecticut. J. P. Johnson (September 25): Grub damage to turf became apparent the second week in September. Soil is exceedingly dry and the grubs are feeding somewhat deeper than usual.
- Rhode Island. B. Eddy (September 22): Catch for 1941 showed a 40-percent increase over 1940.
- Pennsylvania. B. F. Coon (September 16): Only an occasional adult can be found at Lancaster. Injury has been heavy generally, various unoffi-

cial estimates placing a 50-percent loss to field corn. Many ears completely devoid of kernels.

Virginia. N. R. Hunt (September 17): Two live adults, noted on September 14, one eating a rose in Lyon Park and another flying in Arlington County, near where old radio towers stood.

ROSE CHAFER (Macrodactylus subspinosus F.)

Wisconsin. E. L. Chambers (September 24): Abundant in lower half of the State.

CUTWORMS (Phalaenidae)

Maine. A. E. Brower (September): Heavy flight of dark-sided cutworm (Euxoa nessoria Harr.) present at Augusta. Bronzed cutworm (Nephelodes emedonia Cran.) is common at light at Augusta.

Minnesota. H. E. Milliron (September 17): Variegated cutworm (Peridroma margaritosa Haw.) was abundant in a field of unstaked tomatoes at Brooklyn Center on September 16. Approximately 25 percent of the green and ripe fruits were damaged. The yellow-striped armyworm (Prodenia ornithogalli Guen.) is generally scarce near Saint Paul. Isolated larvae were encountered on asparagus and onion. Damage light.

FALL ARMYWORM (Laphygma frugiperda A. & S.)

Virginia. H. G. Walker and L. D. Anderson (September 24): Some fields of very late corn at Norfolk reported as rather severely damaged, but, in general, the injury to corn has been much less than usual. A number of young kale fields were seriously damaged.

Florida. J. R. Watson (September 22): Reported as present on grass.

Alabama. J. M. Robinson (September 19): Reported on September 3 as present on cotton at Prattville.

Mississippi. C. Lyle, et al. (September 25): Specimens were received from Bolivar and Lauderdale Counties, where they were feeding on corn, soybeans, and velvetbeans. Also reported from Sunflower County, without mention of food plant. At State College practically all of the late corn has been ruined by the insect eating into the ears at the tip, in the middle, and at the base.

Tennessee. G. M. Bentley (September 17): Very heavy infestation in certain fields of soybeans at Clarksville, Montgomery County, destroying the leaf and entrance to pods and completely devouring the young beans. Most appreciable damage was in the variety known as 276. Variety known as Ogden, which matures earlier, had no seed injury but appreciable leaf injury. In some fields there was a loss of 60 percent of

seed and forage. In this particular area 1,000 acres had been set aside for the growing of soybeans of the two varieties mentioned above. Growers did not report the injury until the larvae began pupating.

Louisiana. C. O. Eddy (September 25): Abundant, particularly on late-planted corn.

Indiana. J. J. Davis (August 21): Reported as abundant and attacking corn at Boonville, in the extreme southern part of the State.

Missouri. G. D. Jones (September 26): Serious damage reported in east-central and south-central counties. Attack worse on early seeded barley, and other crops are also being damaged. Infestations not general, but widespread.

Kansas. H. R. Bryson (August 28): Reported as causing considerable injury to some fields of corn at Reece.

California. J. Wilcox (September 19): Reported as causing damage to young corn. A field about 1 foot high, examined on September 10, was about 80-percent damaged. Ears harvested on September 18 were about 10-percent infested. Similar damage to corn southwest of Garden Grove was observed by J. C. Elmore.

#### WEBWORMS (Loxostege spp.)

Michigan. R. Hutson (September 29): The garden webworm was sent in with infested beans from East Jordan.

Oklahoma. F. A. Fenton (September 22): The garden webworm (L. similalis Guen.) reported in alfalfa from Minco.

Utah. G. F. Knowlton (September 18): Beet webworm (L. sticticalis L.) moths are still present throughout northern Utah, but generally in reduced numbers.

### CEREAL AND FORAGE-CROP INSECTS

#### WHEAT AND OTHER SMALL GRAINS

##### HESSIAN FLY (Phytophaga destructor Say)

Illinois. (September): Hessian fly has increased during the last year. The increase has been greatest in the southern half of the State, but there has been considerable build-up in the central and north-central wheat-growing areas. Checks made in wheatfields during the last 2 weeks show a considerable emergence of the fly during the week beginning September 15, and from moderate to large numbers of eggs have been laid on volunteer wheat. Not all the fly is out yet.

Iowa. H. E. Jaques (September): From light to moderate infestation in some of the extreme southeastern counties, with moderate to heavy infesta-



tions in several of the southwestern counties.

Kansas. H. R. Bryson (September 20): Frequent fall rains and an abundant growth of volunteer wheat over most of the wheat-growing area of the State has favored a heavy infestation. Reported as abundant in all volunteer wheat in the eastern part of the State.

SOUTHERN CORN ROOTWORM (Diabrotica duodecimpunctata F.)

Kansas. H. B. Hungerford (September 23): Considerable damage has been done to rye and oats near Lawrence. Several nights recently large numbers of adults were a nuisance at the lights.

CORN

CHINCH BUG (Blissus leucopterus Say)

Illinois. W. P. Flint (September 24): Bugs have left the cornfields and are in grasses or already assembling in winter quarters.

Missouri. P. C. Stone (September): Survey on corn during the month indicated moderate numbers scattered throughout the northern and western parts of the State and a light infestation in the central part. Very light third brood was present in the late green corn in the southwestern and north-central parts of the State. A few of the second-brood bugs were in the fifth instar on September 27, but most are in the adult stage and many of them have left the corn.

Iowa. H. E. Jaques (September): Light infestations in Keokuk, Cedar, Scott, and Henry Counties, in the southeastern part of the State, and light to heavy infestations in several counties in the western half of the State.

Kansas. H. R. Bryson (September): Second-generation nymphs caused considerable injury to sorghums and late corn in several counties during August, and continued to do so until September 20. First-generation nymphs in many localities were so far below normal abundance that barriers between small-grain fields and rowed crops were unnecessary. When these nymphs became adults they flew into fields of sorghums and late corn. Eggs were deposited and the second-generation nymphs caused injury to the young plants. Evidence of severe injury was observed in Cloud, Republic, Clay, Marion, Chase, Butler, Dickinson, and Riley Counties. Reports of similar injury were received from Franklin, Sumner, Cowley, Greenwood, Elk, and Sedgwick Counties.

CORN EAR WORM (Heliothis armigera Hbn.)

Maryland. Gertrude Myers (September 30): More abundant on a farm east of Rockville than for 5 years. Almost every ear of corn is infested, and many ears contain two or three larvae, scattered along the entire length.

- Tennessee. G. M. Bentley (September 12): More prevalent generally over the State in field corn, as well as sweet corn, than it has been for several years.
- Louisiana. C. O. Eddy (September 25): Abundant, particularly on late-planted corn.
- Ohio. T. H. Parks (September 23): Very abundant generally, and has caused very heavy injury to market sweet corn throughout the month.
- Indiana. J. J. Davis (September 23): Rather abundant throughout the State in the last 2 months.
- Illinois. W. P. Flint (September 24): Heavy flight of moths. Some damage has been done in soybean fields. Corn matured early enough so that the damage was not so severe as during some seasons.
- R. A. Blanchard and A. F. Satterthwait (September 24): Damage to sweet corn in the canning-corn areas of central Illinois became severe by the first week in September. Late damage to maturing dent corn is more severe than usual in the State.
- Iowa. H. E. Jaques (September): Light infestations reported from scattered counties throughout the State.
- Missouri. L. Haseman (September 18): Through central Missouri, at Columbia in particular, one of the heaviest infestations for many years is taking place. One report indicated that untreated corn in an experimental plot is damaged 100 percent, and practically no treated ears have entirely escaped worm attack. Recently, hundreds of the moths were observed in lawn grass as the lawn mower was run over it.
- Nebraska. H. D. Tate (September 18): In a number of fields of sweet and field corn examined in Scotts Bluff and Box Butte Counties on September 11 and 12, about 95 percent of the ears were infested.
- Nevada. G. G. Schweis (September 20): Does not seem to be so numerous as in past years, and much sweet corn is now on the market, showing comparatively little injury.
- Oregon. G. Ferguson (September): Very scarce on corn in the Willamette Valley until after the middle of August. Late sweet corn has been very heavily infested, the infestation running as high as 68 percent.

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

- Maine. A. E. Brower (September 18-19): One specimen found at light at Augusta.
- Virginia. H. G. Walker and L. D. Anderson (September 24): Not nearly so abundant as last year on corn and other host plants in Princess Anne County.

Ohio. T. H. Parks (September 22): Rather high population is present in field corn in western Hamilton County, near Cincinnati. Stalk breakage is common. Infestation is heavier than 50 to 75 miles farther north.

Indiana. J. J. Davis (September 23): Showed increase this spring and became conspicuous in many localities of the State, where it had not been noticeable before. At Lafayette, where it had not been common in years past, the first-generation borers caused considerable damage to sweet corn and were very conspicuous in many fields of hybrid corn. Second generation did not show up as conspicuously as anticipated, owing no doubt to unfavorable weather and the firing of corn because of the rather severe drought.

Wisconsin. E. L. Chambers (September 24): Considerable damage in eastern part of the State and found in several new counties. Evidences of second brood developing here and there in infested areas.

COMMON STALK BORER (Papaipema nebris nitela Guen.)

Wisconsin. E. L. Chambers (September 24): Reported from all over southern Wisconsin during the month.

Iowa. H. E. Jaques (September): Light infestation in Henry County, in the lower southeastern part of the State, and in Pocahontas County in the northwestern section. Moderate infestation in O'Brien County, also in the northwestern section.

CORN BORERS (Diatraea spp.)

Kansas. E. G. Kelly (September 25): Injured cornstalks have been received during the month from south and southwestern Kansas, and the species was identified as D. grandiosella Dyar. Damage considerable, up to 50 percent of the stalks breaking.

Texas. W. C. Maxwell (September 22): Larvae and pupa of Diatraea sp. were taken from stalks of dwarf maize near Robstown, with about 10 percent of the stalks in this field being infested. One adult emerging from the pupa closely resembles D. saccharalis F. but identification is not definite.

CORN ROOTWORMS (Diabrotica spp.)

Indiana. J. J. Davis (September 23): D. longicornis Say reported as preventing fertilization of corn on September 17, but exact locality has not been learned.

Iowa. H. E. Jaques (September): Infestations of northern corn rootworm (D. longicornis Say) reported as light in Hardin, Union, and Page Counties.

Nebraska. H. D. Tate (September 18): D. virgifera Lec. and D. filicornis Horn were found working on corn silks in Cheyenne County.



A LEAF BEETLE (Colaspis spp.)

Iowa. C. J. Drake (August 18): Heavy adult populations reported from the northeastern and southeastern parts of the State. In the area between these two sections the adult population was reported as much lighter. Known larval damage to corn during the spring was reported from Black Hawk, Poweshiek, Iowa, and Keokuk Counties.

COMMON RED SPIDER (Tetranychus telarius L.)

Oregon. H. E. Morrison (September 15): Severely attacked a 20-acre field of hybrid field corn and sweet corn at Corvallis. Damage not great, as attack was late. Undersides of the leaves appeared pink because of abundance of spiders, and it was estimated that there were 10,000 to the leaf.

ALFALFA

ALFALFA WEEVIL (Hypera postica Gyll.)

California. A. E. Michelbacher (September 23): Very scarce on September 22, although in 1 field in the San Joaquin Valley 2 adults and 6 larvae were collected per 100 sweeps of the net.

PEA APHID (Macrosiphum pisi Kltb.)

Utah. G. F. Knowlton (September 19): Beginning to increase in abundance in some alfalfa fields in northern Utah, after a generally low population during August.

A PLANT BUG (Lygus elisus Van D.)

Utah. G. F. Knowlton (September 17): Abundant in alfalfa at Riverton.

ALFALFA CATERPILLAR (Colias eurytheme Bdv.)

California. A. E. Michelbacher (September 23): Causing very little damage to alfalfa in the northwestern portion of the San Joaquin Valley on September 12. In every field Apanteles flaviconchae Riley and in some places Apanteles in connection with a wilt disease were holding the pest in check. On September 22 nearly all of the larvae were parasitized by Apanteles. In most fields 96 percent or more of the larvae were parasitized. So complete was parasitization that seldom could a large larva be found.

A WEBWORM (Tetralopha sp.)

Virginia. C. Heinrich (September 15): Cacoecia obsoletana Walk. is causing some injury in Northumberland and Lancaster Counties. Additional injury by a webworm of the genus Tetralopha and a soil-infesting Acrolophus. On September 5 it was found that a disease had killed most of the Tetralopha larvae, and Lespedeza serotica plants were putting out new foliage.

SOYBEAN

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis Hbn.) .

North Carolina. C. S. Brinley (September 18): Completely defoliating soybeans on Coastal Plain Experiment Station Test Farm at Willard, Pender County.

B. B. Fulton (September 23): Numerous fields at Swanquarter, Hyde County, have been severely damaged and the fields are entirely defoliated, or nearly so.

South Carolina. W. C. Nettles (September 24): Caused considerable damage to legumes throughout the coastal section.

F. F. Bondy, et al. (September 13): Causing much alarm in the eastern, central, and southern parts of the State. Considerable treatment has been reported from Calhoun and Orangeburg Counties.

Alabama. J. M. Robinson (September 3): Caused damage to soybeans at Auburn and Prattville.

Florida. J. R. Watson (September 22): Adults have been swarming to lights by the thousands. Larvae have pretty well ragged velvetbeans and soybeans and stripped the leaves from many fields of peanuts. A fungous disease appeared the first week in September and largely swept off the caterpillars, Baptisia. Indigofera hirsuta is a new host plant.

Mississippi. C. Lyle, et al. (September 24): Damaged soybeans and velvetbeans in the Gulfport area, and soybeans in Clay, Forrest, Jones, Oktibbeha, Perry, and Stone Counties.

Louisiana. C. O. Eddy (September 25): Soybeans were defoliated throughout practically all of Louisiana during the early part of September, following a period of spotted destruction in August.

KUDZU

LESSER CORNSTALK BORER (Elasmopalpus lignosellus Zell.)

Georgia. T. L. Bissell (September 3): Larvae are killing seedling kudzu plants in a nursery planting at Soperton, in southeastern Georgia.

SORGHUM

SORGHUM WEBWORM (Colama sorghiella Riley)

South Carolina. W. C. Nettles (September 24): Damage noted in Allendale County, in the coastal section.

Texas. W. C. Maxwell (September 22): Some damage is being done to the late crop of grain sorghum in Nueces County, although infestation is not so heavy as on the early crop.

SORGHUM MIDGE (Contarinia sorghicola Coq.)

Georgia. T. L. Bissell (September 18): Grain sorghum at Experiment was ruined. Midges and a small chalcid parasite now emerging from seed heads.

LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

Texas. W. C. Maxwell (September 22): Several bugs congregated on the heads of grain sorghum near Robstown, most of the individuals being in the process of mating. Inspection indicated that all of the specimens in the immediate vicinity had congregated at this point.

RICE

ASIATIC RICE BORER (Chilo simplex Butl.)

Hawaii. R. G. Oakley (September 24): Collections were very poor in rice maturing in April and May, with field infestations approximating possibly 1 percent. Another nearby field in June, however, proved to be so heavily infested that any profit derived therefrom by the owner is doubtful. Average infestation was at least 20 percent. In spots practically 100 percent of the stems seemed to be infested.

F R U I T I N S E C T S

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Tennessee. G. M. Bentley (September 23): Caused appreciable injury to peach and cherry trees in the proximity of wild-plum thickets.

Mississippi. C. Lyle, et al. (September 25): Specimens received from Grenada County. Reported as injuring peach trees in Hinds, Monroe, and Tippah Counties.

Washington. E. J. Newcomer (September 3): Adults found boring into buds of healthy cherry tree. (Det. by M. W. Blackman.)

ROUNDHEADED APPLE TREE BORER (Saperda candida F.)

Alabama. J. M. Robinson (September 19): Reported on August 16 as causing damage to an apple tree at Auburn.

Missouri. L. Haseman (September 26): Observations during the month in central Missouri indicate that the borer is much less in evidence than during former years. On September 15, young larvae had already developed tunnels a few inches in length, heading for the crowns of trees for wintering.



SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

- Ohio. E. W. Mendenhall (September 10): Bad on English elm tree stock in a nursery near Lancaster, Fairfield County.
- Illinois. S. C. Chandler (September 23): Favorable weather conditions have resulted in a big increase on both apple and peach in southern Illinois.
- Wisconsin. E. L. Chambers (September 24): Reported from several new locations, and is increasing in untreated areas.
- Texas. R. K. Fletcher (September 1): Heavy infestation on pear in La Salle County.

WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

- Georgia. O. I. Snapp (September 24): Infestation has developed on young peach trees in the experiment station orchard at Fort Valley, central Georgia.

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

- Maine. Maine Agr. Expt. Sta. (August): Late infestation is moderate and general in York County. Heaviest infestation observed in 5 years or more on neglected trees at Monmouth, Kennebec County.
- New York. D. W. Hamilton (September 23): Peak captures of first-brood adults in bait traps occurred the week of August 3 to 9. Second-brood larval entrances continued to be numerous at Poughkeepsie through August 23 and then tapered off. Although moths were captured in bait traps through September 7, comparatively few were captured after September 1. Injury in the Hudson River Valley in commercial orchards is probably not as severe as in 1940 and definitely less than in 1939.
- Virginia. A. M. Woodside (September 23): Heavy increase in damage to apple in Augusta County, owing to favorable weather conditions throughout July and August. Relatively heavy second-brood flight late in August.
- Tennessee. G. M. Bentley (September 20): Second brood did more damage to late apple crop than it has for several years, especially in untreated areas.
- Ohio. T. H. Parks (September 22): Very abundant on apples in the southern part of the State. Damage severe in a few central and southern orchards where late hatching larvae were entering the fruits until harvesttime.
- Indiana. L. F. Steiner (September 24): After a severe second-brood attack at Vincennes early in July, a continuously heavy third-brood attack extended from early in August until mid-September, with the main peak

of hatch early in September. Infestation is one of the most severe on record. From 50- to 95-percent crop damage in many treated orchards in southern Indiana. Few commercial orchards have less than 25-percent injured fruit, and in one well-treated orchard in Knox County more than 50 percent of the apples were damaged.

Illinois. S. C. Chandler (September 23): A heavy third brood during August and well into September has resulted in a very heavy infestation of many apple orchards all over southern and western Illinois. Carry-over will be great.

Kentucky. L. F. Steiner (September 24): From 50- to 95-percent damage has occurred in northern Kentucky.

Minnesota. A. C. Hodson (September 12): Reported as moderately abundant, but less so than for several years.

Missouri. L. Haseman (September 26): Third-brood larvae have been unusually abundant throughout the apple-growing sections of the State, and growers are complaining more than for years. In central Missouri last moths were taken in bait jars on September 13.

Utah. H. F. Thornley (August 27): Apples in an orchard at New Harmony have recently suffered numerous stings.

Nevada. G. G. Schweis (September 20): Severe infestation observed in apples and pears.

Washington. M. A. Yothers, et al. (September 20): Last pupation for the season at Yakima occurred between August 30 and September 6, during which time only 1.8 percent pupated. Unfavorable weather conditions have greatly reduced activity, resulting in less infested apple fruit than usual. During the 1941 season considerable numbers of larvae have been attacked and killed by an unidentified organism, apparently a bacterium or virus, which kills quickly and causes the larvae to become flaccid and fall to pieces within a few hours after they have been able to crawl into cocooning quarters.

UNSPOTTED TENTIFORM LEAF MINER (Ornix geminatella Pack.)

North Carolina. C. F. Smith (August 15): At West End, many of the apple leaves were distorted, having from 2 to 6 mines. Light damage.

APPLE MAGGOT (Phagoletis pomonella Walsh)

Minnesota. A. C. Hodson (September 12): Outbreak is causing heavy damage in Minnetonka area and in neglected orchards in other parts of the State.

## LEAFHOPPERS (Cicadellidae)

Virginia. A. M. Woodside (September 23): Erythroneura hartii Gill. is very common in some orchards in Augusta County, comprising more than 99 per cent of the leafhopper population on many apple trees.

North Carolina. Z. P. Metcalf (September 26): Leafhoppers are not very serious in the Sand Hills, but more so in the mountains, the most abundant and injurious species being E. hartii. Damage much less than in the average season.

Utah. G. F. Knowlton (September 17): Leafhoppers in considerable numbers are attacking apple foliage on a farm at Orem.

### WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Mississippi. N. L. Douglass (September 25): Injury to apple trees was observed in Grenada County on September 5.

Louisiana. D. L. Van Dine (September 17): Specimens were collected from apple on September 10 at Mound.

### APPLE APHID (Aphis pomi Dog.)

Utah. G. F. Knowlton (September 17): Heavily infesting young apple trees at north Ogden.

### COMSTOCK'S MEALYBUG (Pseudococcus comstocki Kuw.)

Rhode Island. B. Eddy (September 8): Several umbrella catalpas in Providence and Pawtucket are heavily infested.

Connecticut. P. Garman (September 3): Increasing on pears in Greenwich despite treatment.

New Jersey. J. L. King (September 5): Specimens found on ornamental Taxus at Moorestown. (Det. by H. Morrison.)

### SCURFY SCALE (Chionaspis furfura Fitch)

Virginia. A. M. Woodside (September 23): Some apple fruit infestation indicates that a partial second brood has occurred in Augusta County.

### EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Wisconsin. E. L. Chambers (September 24): Very abundant on apples in the southern half of the State.



PEACH

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Connecticut. P. Garman (September 15): Infestation of peaches is much less in all counties than at any time during the last 5 years.

Tennessee. G. M. Bentley (September 22): Less injury generally to peaches and plums than in most years since the introduction of this insect into the State. Rarely found in nursery stock. Late apples have shown a light injury in a few commercial orchards where peaches are grown as interplantings.

Mississippi. C. Lyle, et al. (September 25): Injured peach twigs have been received from Coahoma and Newton Counties. Injury has also been observed in the Grenada and Jackson districts and in Holmes and Monroe Counties.

Louisiana. C. O. Eddy (September 25): Moths are still active in peaches where growth has continued late.

Missouri. L. Haseman (September 26): Late peaches in central Missouri have shown severe injury, and maturing larvae were still present in peach on September 20. Moths in small numbers were taken in bait jars in central Missouri during the third week in September.

PEACH BORER (Conopia exitiosa Say)

Michigan. R. Hutson (September 29): Reported from Newport, Detroit, and Utica.

PEACH TWIG BORER (Anarsia lineatella Zell.)

Colorado. L. Anderson (September 4): Found feeding on peaches where they cause an injury similar to that of codling moth on apples. Considerable injury caused in the Palisade district. (Det. by C. Heinrich.)

California. S. F. Bailey (September 24): Very severe on almonds during the summer. As a result of the very light crop, the larvae consequently concentrated on the soft-shell nuts, injuring in many cases from 25 to 50 percent of the crops in the Sacramento Valley.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia. O. I. Snapp (September 19): Marked increase in number of adults in commercial peach orchards at Fort Valley, central Georgia, during the period August 20-22, owing to emergence of second generation. Most of these had left the orchards for places of hibernation by September 11. Hibernating population is heavier than that of an average year.

Missouri. L. Haseman (September 26): Occasional half- to two-thirds-grown larvae taken in peaches around the middle of September in central Missouri, evidently indicating late second brood.

### PEAR

#### PEAR PSYLLA (Psylla pyricola Foerst.)

Idaho. J. F. Cooper (September 19): Adults and nymphs taken on pear in Boundary County. (Det. by P. W. Oman.)

Washington. J. F. Cooper (September 10): Collected at Orondo, Douglas County. (Det. by P. W. Oman.)

L. G. Smith (September 8): Infestations reported from Dayton and Starbuck areas, in Columbia County, and northeast of Walla Walla, in Walla Walla County, during the summer.

#### PEAR SLUG (Caliroa cerasi L.)

Massachusetts. J. V. Schaffner, Jr. (September 24): Foliage of many pear and cherry trees ruined in the vicinity of Cambridge.

#### PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

Indiana. J. J. Davis (September 23): Destructive at Bridgeport early in September.

Washington. M. A. Yothers and F. W. Carlson (September 18): Found in considerable numbers in dead buds of apples in a number of orchards. No characteristic foliage blisters observed. The worst infestation was in an orchard where there had been a serious attack of the apple powdery mildew.

### RASPBERRY

#### RED-NECKED CANE BORER (Agrilus ruficollis F.)

Wisconsin. E. L. Chambers (September 24): Very abundant in northwestern part of the State.

#### RASPBERRY CANE BORER (Oberea binaculata Oliv.)

Wisconsin. E. L. Chambers (September 24): Very abundant generally throughout the State during September.

#### AN APHID (Aphis varians Patch)

Utah. G. F. Knowlton (September 19): Curling apical foliage of black currant at Brigham.

BLACK-HORNED TREE CRICKET (Oecanthus nigricornis Walk.)

Wisconsin. E. L. Chambers (September 24): Observed damaging raspberry plantation in Milwaukee County during the month.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

Virginia. A. M. Woodside (September 6): Fairly common on grape in Augusta County. Damage light.

North Carolina. Z. P. Metcalf (September 26): Late generation was the worst that reporter has ever seen on bunch grapes in the western part of the State. Not so serious on the muscadine type in the eastern part of the State as in the average year.

Georgia. T. L. Bissell (September 8): Very abundant in the muscadine-grape planting, and has caused heavy defoliation of some vines.

Nebraska. H. D. Tate (September 18): Samples of infested woodbine were received from Hall, Chase, and Grant Counties on August 21 and 28, and September 8, respectively.

Utah. G. F. Knowlton (September 24): Injury to grape and Virginia creeper foliage has increased markedly in northern Utah during the last few weeks.

California. P. Simmons (August): Scattered damage by grape leafhoppers was in evidence during the latter half of the month in Fresno County, but no heavy general infestation. Extensive browning and drying of grape foliage seen on August 15 in a wine-grape vineyard. Common species in this area is E. elegantula Osb.

A SPITTLEBUG (Clastoptera lawsoni Doer.)

Utah. G. F. Knowlton (September 2): Specimens from Pintura, which are damaging the fruits and also heavily attacking tendrils of grapes. (Det. by P. W. Oman as probably C. lawsoni Doer.)

GRAPE LEAF FOLDER (Desmia funeralis Hbn.)

Missouri. L. Haseman (September 26): Rather severe infestation in central Missouri has occurred since early in September on certain grape varieties, as well as on wild grapes and Virginia creeper.

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

Georgia. T. L. Bissell (September 22): Scuppernong fruits sent from Atlanta on August 29 were infested by the grape berry moth and the grape curculio (Craponius inaequalis Say). A heavy drop of fruit was reported.

GRAPE THRIPS (Drepanothrips reuteri Uzel)

California. O. G. Bacon (August 22): Young grape rootings are being stunted in a planting east of Sanger.

PECAN AND WALNUT

WALNUT CATERPILLAR (Datana integririna G. & R.)

Virginia. A. M. Woodside (September 23): A few isolated colonies were observed early in August on black walnut in Augusta County, causing very light damage.

South Carolina. F. Sherman (September 22): Some defoliation of pecan trees is occurring at Clemson.

Mississippi. C. Lyle, et al. (September 25): Reported as causing some injury to pecan trees in Jones, Oktibbeha, and Tippah Counties, where they were more numerous than last year.

Wisconsin. E. L. Chambers (September 24): Very abundant throughout the month, stripping many walnut trees in the southern half of the State.

PECAN CARPENTER WORM (Cossula magnifica Stkr.)

Georgia. O. I. Snapp (September 23): A number of moths were observed on wing in pecan trees today near Fort Valley, central Georgia.

HICKORY SHUCK WORM (Laspeyresia caryana Fitch)

Mississippi. T. F. McGehee (September 25): Injuring pecan nuts along the Gulf coast.

PECAN NUT CASEBEARER (Acrobasis caryae Grote)

Texas. R. K. Fletcher (September 25): Found on pecan in Navarro County on August 25.

TWIG GIRDLER (Oncideres cingulatus Say)

Florida. A. M. Phillips (September 15): Abundant and causing considerable damage in some pecan orchards in the vicinity of Monticello, northern Florida.

PECAN WEEVIL (Curculio caryae Horn)

Georgia. T. L. Bissell (September 4): Large numbers jarred from pecan trees at Yatesville, but none could be found in one orchard at Milner. Weevils are ovipositing at Yatesville.



Missouri. L. Haseman (September 26): Scaly-bark hickory nuts from some trees in central Missouri show from 10 to 25 percent of the nuts infested, whereas the nuts on nearby trees show practically no infestation. Infestation seems to be worse than usual.

#### APHIDS (Aphididae)

Georgia. O. I. Snapp (September 23): Very heavy infestation of giant hickory aphids (Longistigma caryae Harr.) observed today on pecan trees north of Fort Valley, central Georgia. Many branches had been killed.

Mississippi. D. W. Grines (September 25): Heavy damage to pecan foliage by the black pecan aphid (Melanocallis caryaefoliae Davis) was observed in one locality in Holmes County.

Utah. G. F. Knowlton (September ): Monellia caryae Monell is causing a moderate infestation of black walnut at Orem.

#### PECAN PHYLLOXERA (Phylloxera devastatrix Perg.)

Mississippi. D. W. Grines (September 25): Signs of severe damage to pecan trees earlier in the season were observed in Holmes and Coahoma Counties.

#### WALNUT HUSK FLY (Rhagoletis completa Cress.)

California. H. J. Ryan (September 17): Larvae were found in husks of Persian walnuts growing at Montrose, Los Angeles County. First record of the fly in this area.

#### CITRUS

#### FLORIDA RED SCALE (Chrysomphalus aonidum L.)

Florida. M. D. Leonard (September 16): Heavy infestations reported on citrus throughout Lake County, and particularly in the Umatilla section. Control measures are being carried on in Polk and Volusia Counties.

#### PURPLE SCALE (Lepidosaphes beckii Newm.)

Florida. M. D. Leonard (September 14): Heavy infestations occurring on citrus in Lake, Volusia, and Polk Counties.

#### BLACK SCALE (Saissetia oleae Bern.)

California. R. S. Woglun (September): Weather conditions have been very favorable for development. Mortality has been light.

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Florida. J. R. Watson (September 22): A heavy fall brood began to emerge in the central part of Florida about September 10.

SIX-SPOTTED MITE (Tetranychus sexmaculatus Riley)

California. R. S. Woglum (September): Rapidly extending range. Now quite generally distributed over the lemon acreage of Ventura and Santa Barbara Counties. Scattered infestations are to be found through the San Fernando Valley, in southern Orange County, and in various parts of San Diego County.

CITRUS RUST MITE (Phyllocoptes oleivorus Ashm.)

Florida. M. D. Leonard (September 14): Continues to be active in Orange, Polk, Volusia, and Lake Counties.

TROPICAL FRUITS

A WHITEFLY (Trialeurodes variabilis Quaint.)

Florida. M. R. Osburn (September 13): Damaging infestations are present in the Fort Pierce vicinity, on the lower East Coast, on papaya.

GREEN SHIELD SCALE (Pulvinaria psidii Mask.)

Florida. M. R. Osburn (September 20): Heavy infestations are present on Ficus utilis and F. aurca in Fort Pierce and Vero Beach localities on the lower East Coast.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Florida. A. M. Phillips (September 12): Light infestation observed in tung-oil grove near Monticello, Jefferson County.

COCONUT SCALE (Aspidiotus destructor Sign.)

Florida. M. R. Osburn (September 18): Infestations found on coconut palms in Miami and Key West, along the lower East Coast.

T R U C K - C R O P I N S E C T S

CUCUMBER BEETLES (Diabrotica spp.)

Illinois. W. P. Flint (September 24): D. duodecimpunctata F. is causing damage to late string beans throughout central Illinois. In many home gardens and commercial plantings 95 percent of the pods were eaten into before they were ready for harvesting.



Wisconsin. E. L. Chambers (September 24): D. duodecimpunctata and D. vittata F. are very abundant and doing serious damage to cucurbits and various garden flowers in the southern half of the State.

Iowa. H. E. Jaques (September): Light to moderate infestations of the striped cucumber beetle are present in scattered counties throughout the State.

Nebraska. H. D. Tate (September 18): D. vittata was reported to be attacking gourd vines in Douglas County on August 18.

#### BLISTER BEETLES (Epicauta spp.)

Mississippi. C. Lyle, et al. (September 25): Specimens of the margined blister beetle (E. marginata F.) were received from Holmes, Oktibbeha, and Tallahatchie Counties, late in August and early in September. Eggplants, tomatoes, and sunflowers were being injured. Reports of injury to soybeans and late tomatoes in the Jackson district have also been received. Specimens of the southern striped blister beetle (E. lenniscata F.) were received from Lauderdale County, where beans were being injured. Also reported as injuring tomato plants elsewhere in the Meridian district.

#### A SCARABAEID (Pleurophorus cactus Creutz)

Washington. L. G. Smith (September 16): Specimens received with report that they were infesting tomato and cabbage transplants in a hotbed. (Det. by M. H. Hatch.)

#### TOBACCO BUDWORM (Heliothis virescens subflexa Guen.)

Minnesota. H. E. Milliron (September 17): Larvae feeding on fruit and foliage of cultivated ground cherry (Physalis pubescens) and to a lesser degree on P. ixocarpa in the Saint Paul and Minneapolis district. Moderately abundant generally; very abundant in restricted areas, destroying 30 percent of the fruits of P. pubescens.

#### CORN EARWORM (Heliothis armigera Hbn.)

Virginia. H. G. Walker and L. D. Anderson (September 24): Eggs are moderately abundant in a great many bean fields in the Norfolk area and on the Eastern Shore of Virginia. Rather severely damaged a planting of dahlias near a patch of sweetcorn in Norfolk, and have destroyed practically all of the flowering buds on some of the plants.

Kansas. H. R. Bryson (September 20): Caused considerable injury to late beans and to tomatoes at Manhattan.

Utah. G. F. Knowlton (August 26): Infesting 20 percent of the tomatoes examined in a home garden at Wellsville. (September 17): Large percentage of tomatoes at Spanish Fork were reported as infested at

canning time. This was followed by a marked decrease, with a recent building up of infestations. One field examined at Salem showed 13 percent of the fruits infested.

FALSE CHINCH BUG (Nysius ericae Schill.)

Virginia. H. G. Walker and L. D. Anderson (September 24): Several fields of turnip greens in Hansemond County were found to be rather heavily infested on September 15.

SOUTHERN GREEN STINKBUG (Nezara viridula L.)

Texas. K. P. Ewing, et al. (August 30): Extremely abundant in a field of peas examined on a truck farm. Literally millions of nymphs were found per acre.

H. K. Fletcher (September 25): Ruined many plantings of black-eyed peas, beans, and collards and other greens in eastern and central Texas during August and September.

GARDEN FLEA HOPPER (Ealticus citri Ashm.)

Maryland. W. M. Davidson (September 10): Much more abundant at Beltsville than in previous summers and autumns on a wide range of cultivated and wild plants.

South Carolina. W. C. Nettles (September 24): Climbing snap beans are being damaged in Sumter County.

Alabama. H. C. Young (August 27): Found feeding on peanuts in rearing cages at Florala. No reports of damage under field conditions. (Det. by H. G. Barber.)

Missouri. A. C. Burrill (August 25): Stippling grass and leaves. (Det. by H. G. Barber.)

POTATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Maine. Maine Agr. Expt. Sta. (August): Still breeding late in August in Arcostock County. Outbreak and severe injury, reported in mid-August in Androscoggin and Sagadahoc Counties. Generally numerous, with moderate injury in Washington County.

Iowa. H. E. Jaques (September): Light to moderate infestations in scattered counties throughout the State.

Missouri. L. Haseman (September 26): A few half-grown larvae observed feeding on horse nettles in central Missouri early in September.

Minnesota. H. E. Milliron (September 17): Scarce in the Saint Paul-Minneapolis area. Larvae occasionally encountered in greatly reduced numbers on potatoes in September.

Idaho. J. R. Douglass (September 2): Specimens collected at Twin Falls on August 23. (Det. by E. S. Barber.)

Utah. G. F. Knowlton (September 24): Injury was less severe in the small area infested in Weber and northern Davis Counties. No extension of range has been noted in recent years.

#### FLEA BEETLES (*Malticinae*)

Maine. Maine Agr. Exp. Sta. (August): Epitrix cucumeris Harr. numerous at Mars Hill, Aroostook County, and causing severe injury. Few, with moderate injury at Stacyville; numerous with moderate injury in Sherman and other southern towns. General infestation began in mid-August, with severe injury showing on the "islands" left in killing the tops for experimental seed program. Numerous with moderate injury in western part of Waldo County. Just beginning to appear in towns of Unity, Troy, Burnham, and Thorndike. Generally numerous with moderate injury in Penobscot County.

Nevada. G. G. Schweis (September 20): Fleabeetles reported as damaging potato foliage in Smith Valley.

#### POTATO STALK BORER (Trichobaris trinotata Say)

Missouri. P. C. Stone (September 26): Stems of horse nettle in central Missouri are 95 percent infested.

#### POTATO TUBER WORM (Gnorimoschoma operculella Zell.)

Mississippi. C. Lyle, et al. (September): Specimens were received from four farms in Harrison County.

Utah. G. F. Knowlton (September 20): No reports of infestation or injury have been received by the writer during 1940 or 1941.

California. R. E. Campbell (September 15): Severe damage to potato foliage in northeastern Santa Barbara County, southern California. Several fields are so serious that plants have been killed. Also several fields with heavy damage to tubers, enough so that one field was abandoned entirely.

#### ALFALFA LOOPER (Autographa californica Speyer)

Nevada. G. G. Schweis (September 20): Migrated from poor stands of alfalfa to potato fields in Lyon County, causing serious injury to the stands of potatoes.



POTATO LEAFHOPPERS (Empoasca spp.)

- Minnesota. E. E. Milliron (September 17): E. fabae Harr. is moderately abundant in the area around Saint Paul and Minneapolis, and is especially prevalent on potatoes and beans.
- Iowa. H. E. Jaques (September): Light potato leafhopper infestations in a few counties in the southern half of the State, with from light to moderate infestations in several northern counties.
- Utah. G. F. Knowlton (September 19): E. filamenta De L. is abundant and spotting potato foliage near Salt Lake City.
- California. R. E. Campbell (September 15): E. abrupta De L. is very abundant in potato fields in Cuyana Valley, northeastern Santa Barbara County, where obvious damage is being caused. (Det. P. W. Oman.)

POTATO PSYLLID (Paratrioza cockerelli Sulc)

- Nebraska. H. D. Tate (September 18): Collected from potato, tomato, and pepper plants in Scotts Bluff County on September 11 and 12. Severe damage to potatoes evident in many untreated fields.

LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

- Texas. R. K. Fletcher (September 25): Causing considerable damage to tomatoes in eastern and central Texas, and has been reported throughout August and September.

A TOMATO MITE (Phyllocoptes destructor Keifer)

- California. S. F. Dailey (September 24): A new species which has spread rapidly in the State since it was first discovered in May 1940. Now found throughout the Sacramento and San Joaquin Valleys and west to Santa Clara and Napa Counties. Estimated that over half of the tomato acreage is infested in varying degrees.

BEANS

MEXICAN BEAN BEETLE (Epilachna varivestis Muls.)

- Maine. Maine Agr. Exp. Sta. (August): General outbreak, with severe injury in Franklin, Androscoggin, Sagadahoc, and York Counties. Severe injury around Augusta and southward, in Kennebec County, with few beetles and moderate injury in remainder of the county. Negligible injury in Waldo County, but there has been distinct increase in infestation this summer. One case of severe injury in Penobscot County.
- J. E. Hawkins (September 10): Many newly emerged first-generation beetles present on beans at Highmoor Experimental Farm. Very little food left. A few larvae and pupae are present.

Virginia. H. G. Walker and L. D. Anderson (September 24): Several fields of beans in the Norfolk area were observed to be heavily infested on September 22, while many other fields were almost free from injury.

Georgia. T. L. Bissell (August 26): In experimental plots at Tifton, Alyce clover (Alysicarpus vaginalis) seems to be the favored host plant. Leaves conspicuously skeletonized, though no dead plants are present. Only new adults observed.

Alabama. J. M. Robinson (September 19): Abundant on snap beans and soybeans at Auburn.

Mississippi. C. Lyle, et al. (September 25): Specimens received from Attala, Oktibbeha, and Winston Counties late in August and in September. Snap beans and lima beans were being injured. Considerable damage to untreated beans has been observed in the northeastern counties, the Meridian area, and in Choctaw, Jones, Leake, Montgomery, Scott, and Webster Counties.

Nebraska. H. D. Tate (September 18): Observed in a number of fields in Scotts Bluff County on September 11, and serious damage had resulted in some localities.

A WHITEFLY (Trialeurodes abutilonea Hald.)

Virginia. L. W. Brannon (September 3): Present in large numbers in a field of summer snap beans on August 18 at Norfolk. Damage appeared to be light. (Det. by L. W. Russell.)

THREE-CORNERED ALFALFA HOPPER (Stictoccephala festina Say)

Georgia. T. L. Bissell (September 20): Plentiful on a few bean plants in the greenhouse. Now emerging as adults.

Texas. K. P. Ewing, et al. (August 30): Extremely abundant and doing severe damage to young bean plants on a truck farm at Waco. Injury consisted of completely girdling the plant just above the ground with egg punctures. Dozens of eggs per plant were found in the girdle, which practically stopped growth.

A RED SPIDER (Tetranychus sp.)

California. J. C. Elnore (September 18): Very common on lima beans in the Santa Ana area of Orange County, where many of the plants are almost defoliated.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

Maine. Maine Agr. Expt. Sta. (August): Numerous, with moderate to severe injury in Androscoggin and Sagadahoc Counties. Generally numerous, with negligible injury, in Aroostook County.

Minnesota. H. E. Milliron (September 17): Still common on cabbage and cauliflower in Minneapolis and Saint Paul, but population is markedly reduced, as compared with July.

Iowa. H. E. Jaques (September): Light to moderate infestations in scattered counties throughout the State.

Missouri. L. Haseman (September 26): Earlier heavier infestations have largely disappeared from the garden. Since the middle of September, in the central part of the State, cabbage and turnips are showing a severe infestation by the southern cabbage worm (P. protodice Bdv. & Lec.)

CABBAGE LOOPER (Autographa brassicae Riley)

Virginia. H. G. Walker and L. D. Anderson (September 24): Has been very abundant in a great many cabbage and collard fields in Norfolk and Princess Anne Counties, and on the Eastern Shore of Virginia during the last month.

Minnesota. H. E. Milliron (September 17): Very abundant and doing considerable damage to cauliflower in Minneapolis and Saint Paul.

Missouri. L. Haseman (September 26): Cabbage, broccoli, and kale in the central part of the State have been very heavily infested since early in September, and only an occasional larva has shown either disease or the typical hymenopterous parasitization.

CABBAGE WEBWORM (Hellula undalis F.)

South Carolina. W. C. Nettles (September 24): Abundant, at least in the eastern part of the State.

Mississippi. C. Lyle, et al. (September 25): Reported as injuring collards in Wayne County and turnips in the Meridian area.

CROSS-STRIPED CABBAGE WORM (Evergestis rimosalis Guen.)

Alabama. J. M. Robinson (September 19): Reported as causing damage to collards at Auburn on August 16.

Mississippi. D. W. Grimes (September 25): Rather heavy damage to collards observed in a garden in Holmes County.



CABBAGE APHID (Brevicoryne brassicae L.)

Minnesota. H. E. Milliron (September 15): Very abundant on cauliflower and cabbage in Minneapolis and Saint Paul. Probably the most serious pest on cauliflower since August 15.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Virginia. H. G. Walker and L. D. Anderson (September 24): Reported as destroying cabbage in a garden in Norfolk. Observed in a few fields of crucifers, but rather scarce generally in the Norfolk area.

L. A. Hetrick (September 29): Adults are abundant and feeding on ragweed and goldenrod in Northumberland County. The concentration of the bugs was not near an area where crucifers had been grown recently.

Alabama. J. M. Robinson (September 19): Abundant at Auburn and Prattville.

Mississippi. C. Lyle, et al. (September 25): Reported as abundant in the Grenada, Jackson, and Meridian areas, with some damage in Jones and Holmes Counties.

SQUASH

SQUASH BUG (Anasa tristis Deg.)

Maine. Maine Agr. Expt. Sta. (August): Generally numerous, with moderate injury in Franklin, Androscoggin, and Sagadahoc Counties.

A. E. Brower (September): Continues to be abundant and troublesome at Augusta.

Wisconsin. E. L. Chambers (September 24): Very abundant and doing serious damage in all truck crop areas of the State.

Minnesota. H. E. Milliron (September 17): Nymphal population is greatly reduced in Minneapolis and Saint Paul, but adults are still moderate to very abundant on pumpkins and squash.

Iowa. H. E. Jaques (September): Light to heavy infestations in scattered localities throughout the State.

Nebraska. H. D. Tate (September 18): Reported as present in Douglas, York, and Saline Counties on August 18 and 26, and September 12, respectively.

Kansas. H. R. Bryson (September 23): Less abundant at Manhattan than last year. Reported as abundant at Whitewater.

Utah. G. F. Knowlton (September 17): Damaging squash at Orem.

Washington. L. G. Smith (September 8): Reported as attacking squash near Toppenish in Yakima County on June 21, causing many plants to wilt and die. Eggs were noted in abundance on June 27, but no nymphs were present. Eggs were found to be hatching on July 7. First report of infestation in Starbuck, Columbia County, was received on July 7. On August 14 it was reported that bugs were attacking watermelon at Grandview and Mabton, in Yakima County, the infestation being moderate but greater than last year.

#### MELONS

##### MELON APHID (Aphis gossypii Glov.).

- Louisiana. E. H. Floyd (September 25): This aphid is present and building up in great numbers on cucumbers in the Hammond-Ponchatoula truck-crop area.
- Minnesota. H. E. Milliron (September 17): Moderately abundant on muskmelon and squash during the second half of August around Saint Paul and Minneapolis.
- Utah. G. F. Knowlton (September 19): Several cantaloup vines at Willard were damaged.

#### ASPARAGUS

##### ASPARAGUS BEETLES (Crioceris spp.)

- Minnesota. H. E. Milliron (September 17): Adults of C. asparagi L. are very abundant in the Minneapolis-Saint Paul area, with larvae scarce to moderately abundant. Early damage to large asparagus stems very conspicuous at this time. C. duodecimpunctata L. is moderately abundant in Minneapolis and Saint Paul.
- Iowa. H. E. Jaques (September): Light infestation of C. asparagi reported from Pocahontas County.
- Utah. G. F. Knowlton (September 17): C. asparagi slugs are abundant, injuring asparagus at North Farnington.

##### ASPARAGUS MINER (Agronyza simplex Loew)

- Minnesota. H. E. Milliron (September 17): Very abundant in certain area at Richfield station of Minneapolis, 90 percent of all the stalks showing characteristic damage. Injury to new growth was particularly noticeable during the second half of August.

CELERY

CELERY LEAF TIER (Phlyctaea rubigalis Guen.)

Minnesota. H. E. Milliron (September 17): Moderate to very abundant on celery in the Minneapolis-Saint Paul area.

PEANUTS

CORN EAR WORM (Heliothis armigera Hbn.)

Virginia. F. W. Poos (August 29): Larvae much more abundant than usual on certain varieties of Spanish peanuts at Holland.

Georgia. T. L. Bissell (August 27): Larvae present on peanuts at Americus. Feeding conspicuous, although there is not much damage.

ONIONS

ONION THRIPS (Thrips tabaci Lind.)

Minnesota. H. E. Milliron (September 17): Very abundant in restricted sections of the Minneapolis-Saint Paul area. Early damage to onions very conspicuous on late stands. Heavy infestations noted on cauliflower and cabbage, especially where grown very close to infested onions.

Utah. G. F. Knowlton (September 18): Thrips caused moderate injury to white sweet Spanish onions at North Farmington, and less injury to yellow sweet Spanish onions.

Oregon. G. Ferguson (September): Unusually light injury on fall celery, owing to early fall rains. Infestation on onions throughout the year has been below average in the Willamette Valley.

California. S. F. Bailey (September 24): Rather serious infestation occurred in the Sutter Basin district of Sutter County during August.

CARROT

CARROT WEEVILS (Listronotus spp.)

Kansas. H. R. Bryson (August 27): L. oregonensis Lec. destructive to carrots in the vicinity of Wethona during the season. Eighty adults were reared from a small box of infested carrots. Seven larvae were found in one root.

Minnesota. H. E. Milliron (September 17): L. latiusculus Boh. is scarce at New Canada, Ramsey County. Small percentage of bunch carrots is being damaged.

HOPS

HOP APEID (Phorodon humuli Schr.)

Oregon. H. E. Morrison (September): Peak of infestations occurred in the Willamette Valley about the middle of June and another peak occurred about the middle of September. Only one peak occurred in 1940, and that in October. A hot spell during the middle of July in which temperatures in the hop yards reached 110° F., was credited with destroying 99 percent of the aphids present.

STRAWBERRY

STRAWBERRY LEAF ROLLER (Ancylis comptana Froel.)

Wisconsin. E. L. Chambers (September 24): Reported as having practically killed one strawberry field in Dane County.

STRAWBERRY CROWN BORER (Tyloderma fragariae Riley)

Tennessee. G. M. Bentley (September 23): Approximately 2-percent infestation has been found in many strawberry fields grown in the proximity of abandoned strawberry fields that had not been plowed under during the spring and early summer months.

PEPPER

PEPPER WEEVIL (Anthonomus eugenii Cano)

Texas. W. C. Maxwell (September 22): Approximately 50 percent of the pods in a small field of hot peppers in Nueces County are infested, larvae, pupae, and adults being present in the pods. Some pods have four individuals present. In the same vicinity during 1940 a field of sweet peppers was reported as having been seriously damaged.

TOMATO WORM (Protoparce sexta Johan.)

Georgia. A. C. Dorminey (September 4): Reported as causing serious damage to pepper plants at Ashburn. Specimens collected August 30. (Det. by C. Heinrich.)

SWEETPOTATO

TORTOISE BEETLES (Cassidinae)

Mississippi. L. J. Goodgame (September 25): Have fed heavily on sweetpotato plants in Chickasaw and Monroe Counties.



TOBACCO

TOBACCO FLEA BEETLE (Epitrix parvula F.)

Pennsylvania. B. F. Coon (September 15): Population has been light at Lancaster during the season. Following the tobacco harvest, adults are congregating and feeding heavily on sucker growth in the field.

TOBACCO WORM (Protoparce quinquemaculata Haw.)

Pennsylvania. B. F. Coon (September 19): First-generation moths began emerging on August 1 at Lancaster and increased rapidly in population to a peak on August 10. Population was high until September 8, and since that time has been decreasing. Moth capture reveals 91 percent P. quinquemaculata and 9 percent P. sexta Johan.

C O T T O N I N S E C T S

BOLL WEEVIL (Anthonomus grandis Boh.)

North Carolina. J. O. Rowell (September 22): Weevils plentiful on September 19 in a number of cottonfields in eastern North Carolina, where they severely damaged squares and young cotton bolls. Rather high population will go into hibernation, at least in the eastern cotton-producing counties. Central-western and the lower western Piedmont cotton-producing counties seldom experience damage, and there was practically no damage in this area this year. Most of the damage in the State occurred during a rainy period early in July.

South Carolina. C. F. Rainwater (September 20): Very numerous in Florence County in second-growth squares, which dry weather is keeping from forming as fast as they might under normal conditions.

Georgia. P. M. Gilmer, et al. (September 20): Still abundant in the fields in Tift, Berrien, Worth, Dougherty, Lee, Terrill, and Stewart Counties, where second growth and a fair number of squares furnish sufficient food. Very little oviposition has occurred for 2 weeks, and some blooms distorted by feeding damage are now appearing in most fields.

Florida. C. S. Rude (September 27): Abundant in all fields. Owing to lack of food in northern and western Florida, the population is on the decrease.

Alabama. J. M. Robinson (September 19): Serious pest over the State this year.

Mississippi. E. W. Dunnam, et al. (September 20): Many of the weevils in Washington County went into hibernation during the week ended September 20. Examination of bark on trees showed hundreds in cracks and rough places. Those emerging from bolls have absolutely nothing on which to feed. (September 27): Cotton plants have taken on second growth

during the week and much tender foliage is available for food.

Louisiana. M. T. Young, et al. (September 20): In Madison Parish, during the week ended September 20, 102 weevils were collected on field flight screens in that parish, as compared with 21 in 1940 and 115 in 1939. Very little food available.

Tennessee. G. M. Bentley (September 19): Very few weevils found in cotton blooms in the extreme western section of the State.

Texas. H. E. Ewing, et al. (September 27): While general infestation throughout McLennan, Falls, and Limestone Counties has been reduced because leaf worms have stripped such a large proportion of the cotton, there are still many scattered fields where the leaves remain on the plants and squares are being produced, providing ample food and breeding grounds for the boll weevil.

W. C. Maxwell (September 22): Infestation continues to be general and heavy throughout the Coastal Bend section of the State. Practically all squares and young bolls badly infested. Reported as the most severe infestation in several years.

BOLLWORM (Heliothis armigera Hbn.)

North Carolina. J. O. Rowell (September 22): Serious damage was being done to late bolls in cottonfields visited on September 16 in Union County.

South Carolina. F. F. Bondy and C. F. Rainwater (September 6): Few in number in Florence County and doing no damage during the last week.

Georgia. P. M. Gilmer, et al. (August 30): Very severe damage continues in Tift and Berrien Counties. (September 6): Damage is much lighter, owing to maturing of larvae and pupation.

Florida. J. R. Watson (September 10): Sea-island cotton in the center of the State was badly attacked during the latter part of August and first part of September. Bollworm has largely pupated.

C. S. Rude (September 20): New generation is appearing in many fields. (September 27): Present in most fields but doing little or no damage because of lateness of the season.

Alabama. J. M. Robinson (September 19): A serious pest over the State this season.

Mississippi. C. Lyle, et al. (September 25): Injured cotton bolls received from Bolivar, Lee, Leflore, Marshall, Monroe, Newton, Pontotoc, and Yazoo Counties. Reported as injuring cotton in Jackson and Meridian districts.

E. W. Dunnan, et al. (September 13): Caused more damage in Washington County this season than in recent years.

- Tennessee. G. M. Dentley (September 19): Injury more prevalent generally over the cotton-growing counties of western Tennessee than has been noticed in the last 5 years.
- Louisiana. I. J. Decnel (September 25): Appeared in abundance on a number of farms in northwestern Louisiana, causing serious damage to large bolls.
- Texas. L. W. Noble (September 27): Eggs and early larval stages were noted in late-planted cotton at Presidio during the week, but damage was light.
- Arizona. W. A. Stevenson (September 6): Bollworms in the Marana section are practically in pupation and the planters in Pima and Graham Counties are making every effort to produce a good top crop to partially offset the damage done to the bottom crop.

COTTON LEAF WORM (Alabama argillacea Hbn.)

- Maine. A. E. Brower (September 18): A few moths were found at a light at Augusta.
- District of Columbia. R. W. Harned (September 30): Three moths observed at lights and on a screen door.
- Michigan. R. Hutson (September 29): Moth appeared at East Lansing on September 10 and was reported from Saint Joseph on September 19.
- Minnesota. A. G. Ruggles (October 2): Moths are very abundant around Saint Paul and Minneapolis and in this general area. We have had reports from as far west as Ortonville and as far north as Staples. We have had a number of reports of damage to overbearing strawberries. One grower lost 50 percent of his crop one week.
- North Carolina. B. B. Fulton (September 23): Defoliated a number of cottonfields at Swanquarter, Hyde County, but too late to injure the crop.
- J. O. Rowell (September 29): Specimens of larvae and pupae submitted from Perquimans County, with statement that considerable damage has been done to the upper leaves of the cotton.
- South Carolina. F. F. Bondy, et al. (September 27): Has practically disappeared from Florence County without causing any noticeable striping of cotton. Even in fields where first infestation was noted, the population never built up to large numbers. First generation of larvae appeared to be the heaviest.
- W. C. Nettles and F. Sherman (September 24): Rather spotted, and local injury has recently been noticed at several places over much of the State.



F. Sherman (September 26): Considerable number of fresh-looking adults observed at windows at Clemson College on morning of September 27. At Pendleton, about 4 miles from Clemson, defoliation of cotton was observed on September 25.

Georgia. T. L. Dissell (September 25): Stripping cotton at Cartersville, in northwestern Georgia. In a few treated fields of later cotton the worms are now decreasing.

Florida. C. S. Rude (September 13): Still a serious threat to late cotton in Lake County.

J. R. Watson (September 10): Sea-island cotton in the center of the State was badly attacked during the latter part of August and first part of September. Most pupation has now taken place.

Alabama. J. M. Robinson (September 19): Reported as causing damage to cotton at Auburn, Athens, Dothan, and Scottsboro on August 12.

Mississippi. E. W. Dunn, et al. (September 6): In Washington County leaf worms had stripped practically all leaves from all cotton that was not extremely tough. (September 20): Moths are abundant. Eggs deposited for the last 10 days have not hatched and most of them appear to be drying out.

C. Lyle, et al. (September 24): Cotton in the northern two-thirds of the State has been almost completely defoliated. Degree of defoliation much greater than usual.

Tennessee. G. M. Bentley (September 10): Most of the cotton-growing counties in western Tennessee are highly infested. In untreated areas many acreages had complete devastation of leaves. Very little cotton in the central part of the State has been attacked. First appearance of damage was in the first week in August in Dyer, McNairy, and Tipton Counties.

Louisiana. M. T. Young (September 20): In Madison Parish there are very few cottonfields that have not been either defoliated or badly ragged, and leaf worms can be found on most cotton that has not been defoliated.

I. J. Beemel (September 25): Practically every untreated cottonfield in the Red River Valley has been defoliated.

Missouri. G. D. Jones (September 6): Specimens collected from cotton in Pemiscot and Dunklin Counties on September 3. First specimens for the year from this State. (Det. by C. Heinrich.)

L. Hasenau (September 26): Northern flight of moths into central Missouri was extremely heavy from around September 10 to 20, but nearly all of them disappeared suddenly from orchards, where they were damaging late fruit, between September 20 and 25.



G. D. Jones (September 26): Widespread infestations have been occurring in southeastern Missouri since the middle of August. Only a few fields are severely damaged, as larvae showed up too late to reduce setting of bolls materially.

Texas. K. P. Ewing, et al. (September 6): Defoliation continues throughout central Texas. Damage will be considerable, as many of the bolls are only about half grown or smaller. This is especially true of late-planted cotton. Defoliation was noted all along the route from Port Lavaca to the coastal area, where treatment was preventing defoliation to a great extent. (September 13): Moths are exceedingly abundant in many fields in McLennan, Falls, and Limestone Counties, where the leaves remain on the cotton. Eggs are also numerous in many of these fields. It is estimated that there are hundreds of thousands of moths per acre in some fields.

W. C. Maxwell (September 22): Light infestation in many fields in Kleberg and Nueces Counties, but insufficient in numbers to cause defoliation.

L. W. Noble (September 20): Leaf worms are not causing serious damage in Presidio County. Only one field was noted in which the cotton crop had been appreciably damaged.

New Mexico. J. R. Eyer (September 3): Larvae collected from cotton at Deming on August 22. (Det. by C. Heinrich.)

Arizona. W. A. Stevenson (September 6): Specimens received during the week from Graham County, but no commercial damage has been reported. Infestation in Pima County is still very light. (September 13): Reported as present in Safford Valley.

#### COTTON LEAF PERFORATOR (Bucculatrix thurberiella Busck)

Texas. W. C. Maxwell (September 22): Height of infestation in Nueces County was attained about August 30, most of the leaves in nearly all of the cottonfields being infested. As many as 50 larvae were counted on some of the leaves. A few larvae are now present on some of the more succulent leaves, mines also being noticeable on such leaves.

#### PINK BOLLWORM (Pectinophora gossypiella Saund.)

Texas. L. W. Noble (September 6): Marked increase in population in Presidio County during 15-day period between infestation counts. (September 27): Heavy infestation prevailing at Presidio is causing shedding of young fruiting forms.

#### APHIDS (Aphididae)

South Carolina. F. F. Bondy and C. F. Rainwater (September 6): Aphids have about disappeared from cotton in Florence County.

Georgia. P. M. Gilmer, et al. (September 13): Very few aphids present in cotton in Tift and Berrien Counties.

Florida. C. S. Rude (September 27): Less numerous than a week ago.

Mississippi. E. W. Dunnan, et al. (September 27): Aphids have almost disappeared in all cottonfields in Washington County.

Louisiana. R. C. Gaines, et al. (September 13): Aphids have almost disappeared in most fields in Madison Parish.

I. J. Becnel (September 24): Aphids on cotton have practically disappeared. Predaceous insects have taken a heavy toll.

Texas. K. P. Ewing, et al. (September 13): Aphids have disappeared from many fields in McLennan, Falls, and Limestone Counties. (September 20): Scarce, except in an occasional field.

W. C. Maxwell (September 22): Light infestation of Aphis gossypii Glov. in some fields in Nueces County, but insufficient numbers to cause appreciable damage.

#### A PENTATOMID (Chlorochroa ligata Say)

Texas. L. W. Noble (September 27): Adults still present in cottonfields at Presidio. Reduction in yield is apparent.

#### WHITEFLIES (Aleyrodidae)

South Carolina. F. F. Bondy, et al. (August 30): Present in all fields and have probably added to the general aphid injury in Florence and Calhoun Counties.

#### FOREST AND SHADE-TREE INSECTS

##### FALL WEBWORM (Hyphantria cunea Drury)

Connecticut. M. P. Zappe (September): Appears to be more abundant on shade trees in the eastern part of the State than it has been for 2 or 3 years.

Virginia. O. I. Snapp (August 16): Very heavy infestation observed on woodland trees, especially persimmon, near Rockymount, in the southern part of the State.

A. M. Woodside (September 23): Fairly common on persimmon and sourwood from Charlottesville to Danville and east to Richmond. All larvae had left nests by September 10.

West Virginia. O. I. Snapp (August 31): Nests were abundant on walnut trees in the mountains near Yellow Springs, in the eastern part of the State.

- North Carolina. O. I. Snapp (September 3): Abundant on persimmon and wild cherry in the vicinity of Walnut Cove, in northwestern North Carolina. Heavy infestation in that locality was reported a year ago.
- Florida. A. M. Phillips (September 15): Light to heavy infestation on pecans in some sections of Jefferson County.
- Mississippi. C. Lyle, et al. (September 25): Specimens taken from Arizona cypress were received from Washington County. Reported as present on pecan in Alcorn, Bolivar, Holmes, and Tippah Counties. Infestation is much lighter than in 1940.
- Arkansas. W. J. Baerg (September 2): Second-brood caterpillars are now in the second and third instars on walnut, persimmon, and birch. Second brood is about as numerous as the first.
- Wisconsin. E. L. Chambers (September): Moderately abundant in southern half of the State.
- Minnesota. A. C. Hodson (September 12): Common in ash and elm in many parts of the State. Complete defoliation of all trees and shrubs was observed on an island in Lake Kabetogama on August 18.

YELLOW-NECKED CATERPILLAR (Datana ministra Drury)

- Mississippi. C. Lyle, et al. (September 25): On September 1 larvae, supposed to belong to this species, were received from Washington County, where they were taken from oak trees. Observed injuring oak trees in Oktibbeha County at the same time.
- Minnesota. A. C. Hodson (September 12): Common on mountain ash, birch, and maple near Finland.

WHITE-MARKED TUSsock MoTH (Hemerocampa leucostigma A. & S.)

- Indiana. J. J. Davis (September 23): Conspicuous in several localities. Especially abundant on Mahonia aquifolium at Bloomington on September 1.

BAGWORM (Thyridopteryx opheneraeformis Haw.)

- Virginia. O. I. Snapp (August 31): Very heavy infestation observed on ornamental cedar trees in yards at Winchester, in northern Virginia. Some trees completely defoliated.
- West Virginia. F. Waldo Craig (August 25): Reported as scarce throughout the State during the month.
- Mississippi. C. Lyle, et al. (September 25): Reported as injuring shrubs in Newton County and arborvitae in every town in the northeastern part of the State. Defoliated conifers observed in Tallahatchie County on September 19.



Tennessee. G. M. Bentley (September 16): Medium infestation on narrow-leaved evergreens generally over the State.

Ohio. E. W. Mendenhall (September 10): Serious on arborvitae trees in a nursery at Ashville.

Indiana. J. J. Davis (September 23): Abundant on a variety of trees in southern Indiana during August.

PALMERWORM (Dichomeris ligulella Hbn.)

Minnesota. A. C. Hodson (September 12): Very abundant in northeastern half of the State in June. Oak and hazel were heavily skeletonized. Many trees and shrubs were attacked in some localities and apples were attacked near Saint Paul.

WALKINGSTICK (Diapheromera femorata Say)

Minnesota. A. C. Hodson (September 12): Caused complete defoliation of about 40 acres in an area of mixed hardwoods west of Brainard. Found abundant in a much larger area where local defoliation was observed.

ASH

AN APHID (Prociphilus fraxinifolii Riley)

Utah. G. F. Knowlton (September 4): Seriously curled 10 percent of the green ash in a nursery plot at Logan. Almost 100-percent internal parasitization of insects late in the season.

BEECH

BEECH BLIGHT APHID (Prociphilus inbricator Fitch)

Connecticut. E. P. Felt (September 24): Extremely abundant on some woodland beeches at Greenwich.

BIRCH

BRONZED BIRCH BORER (Agrilus anxius Gory)

Maine. H. B. Peirson (September 22): Survey of yellow birch stands in central Maine shows that in many areas over 30 percent of the birch is dead or dying. Heavy infestation by this species occurs.

BIRCH SKELETONIZER (Bucculatrix canadensisella Chamb.)

Minnesota. A. C. Hodson (September 12): Very abundant in the area a few miles south of International Falls.



BIRCH LEAF-MINING SAWFLY (Phyllotoma nemorata Fall.)

Maine. H. B. Peirson (August 20): From 40 to 60 percent of the white birch leaves in an area in Somerset County are infested with an average of two insects per leaf.

A SAWFLY (Arge pectoralis Leach)

Minnesota. A. C. Hodson (September 12): Reported as completely defoliating paper birch north of Virginia and on Lake Vermilion. Little serious damage expected, because defoliation took place after August 1.

CATALPA

CATALPA SPHINX (Ceratomia catalpae Bdv.)

Indiana. J. J. Davis (September 23): Defoliated catalpa trees in many localities of the State.

Mississippi. L. J. Goodgame (September 24): Larvae have defoliated all catalpa trees in one town in Monroe County.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

Ohio. E. W. Mendenhall (September 10): Second-brood beetles injuring Chinese elms in Ashville, Pickaway County.

LARGER ELM LEAF BEETLE (Monocosta coryli Say)

Alabama. J. M. Robinson (September 19): Reported as attacking elms at Blountsville and Troy on August 8.

NATIVE ELM BARK BEETLE (Hylurgopinus rufipes Eich.)

Rhode Island. B. Eddy (September 23): Prevalent in hurricane-damaged and otherwise weakened elm trees throughout Rhode Island.

ELM LACEBUG (Corythucha pallida ulmi O. & D.)

Connecticut. E. P. Felt (September 24): Somewhat general along road from New Milford north to Canaan early in August.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Wisconsin. E. L. Chambers (September 24): Reported from several new locations. Increasing where no treatment has been applied and in poorly treated areas.

FIR

HEMLOCK LOOPER (Ellopia fiscellaria Guen.)

Minnesota. A. C. Hodson (September 12): Reported as common in balsam fir but no defoliation found.

HICKORY

OBSCURE SCALE (Chrysomphalus obscurus Const.)

Illinois. C. L. Metcalf (September 22): Injuring hickory trees at Paris, in east-central Illinois, early in September.

LARCH

EASTERN LARCH BEETLE (Dendroctonus simplex Lec.)

Minnesota. A. C. Hodson (September 12): Found killing mature tamarack near Deer River and Big Falls. Trees had healthy crowns but were not young and vigorous.

LINDEN

A CHRYSOMELID (Baliosus ruber Weber)

Minnesota. A. C. Hodson (September): Outbreak, which has continued with only slight interruption for 6 years, was evident again near Detroit Lakes. In some areas adults were so abundant in June that basswood trees turned brown, even though few larval mines were found on August 1.

LOCUST

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Connecticut. J. V. Schaffner, Jr. (September 24): Foliage of black locust is browned throughout the northern part of Middlesex County.

Mississippi. L. J. Goodgame (September 25): Leaves of black locust trees in the northeastern part of Lee and in Union Counties have been injured.

LOCUST BORER (Cyllene robiniae Forst.)

Rhode Island. B. Eddy (September): Normally abundant on goldenrod throughout the eastern part of the State.

Virginia. L. A. Hetrick (September 25): Adults were abundant on the trunks of black locust trees at West Point.

MAPLE

ORIENTAL MOTH (Cnidocampa flavescens Walk.)

Massachusetts. J. V. Schaffner, Jr. (September 16): Continues to be locally abundant in some of the municipalities adjacent to Boston. Considerable number of shade and ornamental trees, principally Norway maple, in back yards and vacant lots in some residential sections of Cambridge and Medford were completely defoliated.

OAK

RED-HUMPED OAK CATERPILLAR (Symmerista albifrons A. & S.)

New Jersey. C. L. Griswold (September 5): S. albifrons albicosta Hbn. is very abundant on oaks through central and northern parts of Sussex County, especially in the Stokes State forest area. Bulk of the larvae were about half grown, but all instars were seen. Considerable defoliation in evidence.

Minnesota. A. C. Hodson (September 12): Reported as common during August on maple, oak, and various shrubs. Abundant on red maple near Lake Vermilion. Most defoliation not completed until after August 15.

A SCALE (Lecanium quercitroneis Fitch)

Alabama. J. M. Robinson (September 19): Reported on August 7 as being present on oak at Tarrant.

LEAFY OAK GALL (Andricus foliatus Ashm.)

Virginia. E. P. Felt (September 24): Observed in considerable numbers on a live oak at Virginia Beach.

PINE

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Rhode Island. B. Eddy (September 23): Austrian pine in Narragansett had tips of laterals heavily infested and the sap ran down the stems for some distance.

Michigan. R. Hutson (September 29): Reported from Detroit.

NANTUCKET PINE SHOOT MOTH (Rhyacionia frustrana Const.)

West Virginia. F. Waldo Craig (August 25): Specimens of borers in twigs from the scrub pine were collected at Lesage, in Cabell County.  
(Det. by C. Heinrich as possibly this species.)

Mississippi. C. Lyle, et al. (September 25): Specimens were received from Hinds, Newton, and Washington Counties late in August and in September. Observed on pine in one locality in Oktibbeha County.

Michigan. H. J. MacAloney (August 30): Larvae were collected from red-pine-seedling stock in a nursery at Wellston. Very scarce. (Det. by C. Heinrich as presumably R. frustrana.)

ZIMMERMAN'S PINE TIP MOTH (Pinipestis zimmermanni Grote)

Minnesota. A. C. Hodson (September 12): Found causing severe damage to red pine west of Park Rapids. On some trees nearly all current terminal growth was killed.

SPRUCE BUDWORM (Cacoccia funiferana Clem.)

Minnesota. A. C. Hodson (September 12): Reported as causing heavy defoliation of jack pine in Superior National Forest and near Brainerd. Spruce variety caused heavy defoliation in small stand of Balsam fir west of Duluth.

A SAWFLY (Gilpinia frutetorum F.)

Rhode Island. J. V. Schaffner, Jr. (September 24): Light infestations found in red pine plantation at East Greenwich, and in a Scotch and Austrian pine plantation at Portsmouth.

Connecticut. J. V. Schaffner, Jr. (September 19): Larvae, from two-thirds grown to full grown, are rather abundant on red pine at Southington. Light infestations found in plantations at Middletown, North Haven, Branford, and Litchfield.

A SAWFLY (Neodiprion pinetum Nort.)

Illinois. C. L. Metcalf (September 22): Severely defoliated large white pine trees in De Kalb County, northern Illinois, late in August, and early in September.

RED-HEADED PINE SAWFLY (Neodiprion lecontei Fitch)

Minnesota. A. C. Hodson (September 12): Common on young red pine near Cloquet. Some trees were completely defoliated on August 22. Larvae are now nearly full grown.

INTRODUCED PINE SAWFLY (Diprion simile Htg.)

Minnesota. M. W. Wing (September 15): Present on pine at White Bear.

A PINE WEEVIL (Pissodes approximatus Hopk.)

Massachusetts. E. P. Felt (September 24): Injurious to rugho pine at Waban.



PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

Connecticut. M. P. Zappe (September): Increasing in abundance over the entire State for several years. Rather scarce a few years ago, but is a serious pest of mugho, red, Scotch, and Japanese red pines. Many large red pines (30 feet) are completely white and very noticeable.

Wisconsin. E. L. Chambers (September 24): Observed in Jefferson County during the month.

POPLAR

A BORER (Euzophera ostricorella Hulst)

New York. E. P. Felt (September 24): Injuring bases of a number of tulip trees about 10 inches in diameter at Westbury, Long Island.

POPLAR AND WILLOW BORER (Sternochetus lamathi L.)

Wisconsin. E. L. Chambers (September 24): This insect is moderately abundant in the southeastern corner of the State.

SPRUCE

YELLOW-HEADED SPRUCE SAWFLY (Pikonema alaskensis Rohw.)

Minnesota. A. C. Hodson (September 12): Found scattered through coniferous area with heavy defoliation of white spruce north of Havland.

SPRUCE NEEDLE MINER (Epinotia nanana Treit.)

Wisconsin. E. L. Chambers (September 24): On the increase throughout southern Wisconsin, doing damage in some localities.

SPRUCE BUD SCALE (Physokermes piceae Schr.)

Wisconsin. E. L. Chambers (September): Observed in many locations in southern part of the State.

SYCAMORE

SYCAMORE LACEBUG (Corythucha ciliata Say)

Connecticut. A. DeCaprio (September 24): Leaves of sycamore trees in the vicinity of New Haven have shown decided yellowing.

INSECTS AFFECTING GREENHOUSE  
AND ORNAMENTAL PLANTS

FULLER'S ROSE BEETLE (Pantomorus godmani Crotch)

Virginia. L. A. Metrick (September 28): Abundant and feeding on foliage of mimosa and black locust at West Point.

CHINCH BUGS (Blissus spp.)

Connecticut. J. P. Johnson (September 25): Last nymphal instar and overwintered adults of the second generation of B. hirtus Montd. are present in large numbers in infested turf in New Haven and New Britain. Dry weather during August and September created favorable conditions for the second-generation bugs.

Rhode Island. E. Eddy (September 23): B. hirtus has continued to be prevalent in lawns in Providence during September.

Alabama. J. M. Robinson (September 19): B. insularis Say reported as causing damage to Saint Augustine grass at Hartford on July 22.

TWO-MARKED TREE HOPPER (Enchenopa binotata Say)

Connecticut. E. P. Felt (September 25): Bladder nut (Ptelea trifoliata) has a large proportion of the under sides of the smaller branches  $\frac{1}{4}$  inch in diameter, or thereabouts, nearly covered with the peculiar waxy material indicating oviposition scars made by this insect. No visible injury at present, but it is possible that the twigs have been injured to such an extent that many of them will die during the coming winter.

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Mississippi. C. Lyle, et al. (September 25): Reported as causing injury to privet hedge plants in Hinds County and to Cape-jasmine in the Meridian area.

OYSTERSHELL SCALE (Lepidosaphes ulmi L.)

Minnesota. M. W. Wing (September 15): Scarce on lilac in Minneapolis.

Wisconsin. E. L. Chambers (September): Observed in Racine County, and very abundant in one location.

Utah. G. F. Knowlton (September 19): Attacking lilac, poplar, willow, and ash at Logan.

WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

Virginia. L. A. Hetrick (September 23): Heavy infestation noted on catalpa trees at Sandston.

CYCLAMEN MITE (Tarsonemus pallidus Banks)

Illinois. W. P. Flint (September 24): More prevalent on greenhouse crops such as cyclamen, Saintpaulia sp., and ivies than at any time during the last 3 years. Very severe infestation has been found on azalea in a central Illinois greenhouse.

COMMON RED SPIDER (Tetranychus telarius L.)

Wisconsin. E. L. Chambers (September 24): Very abundant throughout the State on evergreens and various flower plants.

AZALEA

AZALEA LACEBUG (Stephanitis pyrioides Scott)

Mississippi. G. L. Bond (September 25): Some damage to azalea observed in Jackson County.

CANNA

LARGER CANNA LEAF ROLLER (Calpodes ethlius Cran.)

Arizona. R. A. Flock (September 20): Present on canna from Tombstone to Pomerene, Cochise County.

CHRYSANTHEMUM AND DAHLIA

COCKLEBUR BILBEG (Rhodobaenus tredecimpunctata Ill.)

Georgia. T. L. Bissell (September 19): Reported by a grower as doing considerable damage to dahlias at Barnesville.

Indiana. J. J. Davis (September 23): Reared from a larva infesting terminal shoots of greenhouse chrysanthemum. Larva was received September 1 and emerged as an adult on September 15. First infestation observed on August 20.

Wisconsin. E. L. Chambers (September 24): Some dahlia growers in Dane and Milwaukee Counties reported serious injury to dahlia plants during the latter part of August and the early part of September.

GRAPEMYRTLE

GRAPEMYRTLE APHID (Myzocallis kahawaluokalani Kirk.)

Mississippi. L. J. Goodgame (September 25): Observed in one locality in Monroe County.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Maryland. E. N. Cory (September 12): Reported from Prince Frederick.

Virginia. L. A. Hetrick (September 28): Ornamental euonymus plants are heavily infested generally in most parts of eastern Virginia.

South Carolina. F. Sherman (September 20): Heavy infestations are in evidence at Clemson.

Mississippi. C. Lyle, et al. (September 25): Caused serious damage in the Meridian area and in Madison and Oktibbeha Counties.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips simplex Morison)

South Carolina. F. Sherman (September 24): Reported from several places in the western half of the State.

Tennessee. G. M. Dentley (September 23): Caused less injury on gladiolus than for several years.

Wisconsin. E. L. Chambers (September 24): Very abundant and doing much damage in the southern two-thirds of the State.

HAWTHORN

PEAR SLUG (Caliroa corasi L.)

Utah. G. F. Knowlton (September 19): Damaged ornamental hawthorn foliage on college campus at Logan.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausn.)

Wisconsin. E. L. Chambers (September 24): Observed to be very abundant on flowering crabs in Walworth County during the month.

AN APHID (Amphorophora crataegi Tissot)

Utah. G. F. Knowlton (September): Seriously injured hawthorn bushes on the margin of a nursery at Logan. Thirty percent of the leaves on one bush have fallen and the under sides of leaves and many of the stems are covered by the yellow-bodied aphids.



IVY

OLEANDER SCALE (Aspidiotus hederæ Vallot)

Nebraska. H. D. Tate (September 18): On ivy leaves from Lancaster County on August 27.

LILAC

LILAC BORER (Podosesia syringæ Harr.)

Kansas. H. R. Bryson (September 22): Reported as causing injury to lilacs at Hillsboro.

PALM

PALM WEEVIL (Rhynchophorus cruentatus F.)

Florida. J. R. Watson (September 22): Reported as a serious pest of palms on the lower East Coast.

PRIVET

PRIVET THRIPS (Dendrothrips ornatus Jablon.)

Maryland. W. M. Davidson (September 10): Heavy infestation caused extensive silvering on privet hedge at Beltsville residence center during July and August.

PYRACANTHA

A LACEBUG (Corythucha cydoniæ Fitch)

Georgia. T. L. Bissell (September 10): Unusually thick on pyracantha for several weeks.

LEAF CRUPLER (Mineola indigenella Zell.)

Texas. R. K. Fletcher (September 25): Causing an increasing amount of damage to pyracantha in Harris County and throughout eastern Texas.

ROSE

ROSE STEM GIRDLER (Agrilus communis rubicola Per.)

Wisconsin. E. L. Chambers (September): Observed killing rose in Milwaukee County.

ROSE SCALE (Aulacaspis rosæ Bouche)

Wisconsin. E. L. Chambers (September 24): Observed doing severe damage to roses in Milwaukee County during the month.

ROSE LEAFHOPPER (Typhlocyba rosae L.)

Wisconsin. E. L. Chambers (September 24): Very abundant in southern half of State.

ZINNIA

YELLOW WOOLLY BEAR (Diacrisia virginica F.)

Texas. W. C. Maxwell (September 22): Severely damaged foliage of zinnias at Robstown, practically all of the feeding being done on the under side of the leaf. Damage was general over a period of several weeks. Zinnias apparently the preferred host.

I N S E C T S   A T T A C K I N G   M A N   A N D

D O M E S T I C   A N I M A L S

MAN

MOSQUITOES (Culicidae)

Florida. W. E. Dove (September): Aedes taeniorhynchus Wied. has been unusually abundant during the summer months but decreased during September. A. sollicitans Walk. has been present in the vicinity of Panama City and was found breeding in large numbers in a small pond about 50 miles from salt water.

G. H. Bradley (August 31): Salt-marsh-mosquito infestation at New Smyrna Beach decreased considerably from the previous month. Light trap at laboratory took an average of 21 A. sollicitans and A. taeniorhynchus per night, as compared with an average of 77 last month and 97 for August 1940.

J. B. Hull (August 31): Salt-marsh mosquitoes were less numerous on the island across from Fort Pierce during August than during July.

Missouri. L. Haseman (September 26): Mosquitoes have been extremely annoying through central Missouri, and it has been reported that they have been equally as abundant through northeastern Missouri and in other sections of the State. Two undetermined species have been most common in the collections.

Kansas. H. R. Dryson (September 20): Culex spp. are more abundant in the vicinity of Manhattan than they were at this time last year.

Texas. W. G. Bruce (September 16): A. triseriatus Say was collected on September 8 at Dallas. (Det. by A. Stone.)

Colorado. M. T. James (September 20): Breeding has evidently been more active than usual in the vicinity of Denver, Fort Collins, Greeley, and Boulder. Reports of mosquitoes have been received from Denver,

and stock ranchmen in southeastern Weld County report that the infestation has continued longer than usual in the season. Preliminary surveys show that chief species seem to be A. dorsalis Meig., A. nigronaculis Ludl., A. vexans Meig., Culex tarsalis Coq., and Theobaldia inornata Will. One hundred and sixty-four cases of encephalomyelitis in man and 39 deaths have been reported for the State up to the early part of September.

Utah. G. F. Knowlton (August 30): Mosquitoes, mostly A. dorsalis, are extremely annoying to man and livestock in fields near Logan, Hooper, Plain City, Snowville, Bothwell, Penrose, Garland, Tremonton, Locomotive Springs, and east of Kosmo.

Oregon. E. F. Knipling (September 3): A total of 254 Anopheles sp. were obtained in 1 night's catch in a light trap in Portland, which is by far the greatest number of this genus recorded from 1 night's catch in the Northwest. Monsonia perturbans Walk. were taken in a light trap on Lotus Island (Portland) during August. Population at Seapoose seemed to be lower during the middle of August than during the latter part of July, when the first Oregon records were made.

#### FLEAS (Siphonaptera)

Maryland. E. N. Cory (September 11): Common dog flea reported from Cumberland.

Florida. F. C. Dishopp (September 26): Fleas reported as causing severe annoyance in barns on a farm near Caryville during the summer and an inspection was made today without seeing a flea. Reported as usually disappearing at this time of the year.

Indiana. J. J. Davis (September 23): Fleas have been very abundant in buildings, lawns, and farm buildings, especially hog barns, in all sections of the State during the last 2 months.

Michigan. R. Hutson (September 29): Considerable trouble has been experienced from dog and cat fleas in the vicinity of Lansing and Buchanan.

Missouri. L. Haseman (September 26): Fleas reported in barns, outbuildings, and basements.

Kansas. H. R. Dryson (September 24): Unusual number of reports of infestations of dog fleas have been received during the month. Special reports have been received from Manhattan, McPherson, and Humboldt.

#### BEDBUG (Cimex lectularius L.)

Maryland. E. N. Cory (September 5): Reported from Cumberland.

Alabama. J. M. Robinson (September 19): Reported as attacking chickens at Atmore on August 20.

BLOODSUCKING CONENOSE (Triatoma sanguisuga Lec.)

Indiana. J. J. Davis (September 23): Reported as very annoying during August in three localities in the southern third of the State.

CHIGGER (Eutrombicula alfreddugesi Oud.)

Missouri. L. Haseman (September 26): Caused annoyance during first half of September and were reported as late as September 20, a little later than usual for central Missouri.

EYE GNATS (Hippelates spp.)

Texas. F. C. Bishopp (September 10): Abundant and very annoying in various locations in Dallas.

BROWN DOG TICK (Rhipicephalus sanguinus Latr.)

Maryland. E. N. Cory (September): Reported from Stockton on September 3, from Salisbury on September 4, and from Baltimore on September 15.

AMERICAN DOG TICK (Dermacentor variabilis Say)

Massachusetts. C. N. Smith (September 26): Activity of adults continued to decline during August and completely ceased in some areas. Abundance of nymphs and larvae increased in some areas.

Maryland. E. B. Marshall (August 27): Three adults were taken from a dog at Laurel. (Det. by H. L. Trembley.)

BLACK WIDOW SPIDER (Latrodectus mactans F.)

Indiana. J. J. Davis (September 23): Reported during the last 2 months as more abundant than usual in the southern half of the State.

Nebraska. H. D. Tate (September 18): Reported as present in Red Willow, Clay, York, Scotts Bluff, and Platte Counties from August 14 to September 15.

CATTLE

SCREWORM (Cochliomyia americana C. & P.)

Florida. M. H. Wodlinger (September 11): High incidence occurred in a number of hogs on a farm at Ocala, 20 out of 200 being infested.

Florida and Alabama. W. E. Dove, S. W. Simmons, F. C. Bishopp (September 14): No cases reported from the immediate vicinity of Bonifay, Fla., this season. Farmers state that recently they have seen infestations which they think were true screwworm cases near Marianna, Fla., and Geneva, Ala.



Indiana. J. J. Davis (September 23): Infested the navel of a recently born calf on August 26 at La Fayette. Reported on September 18 as causing considerable trouble at North Salem. (Det. by H. G. Hall.)

Montana. H. B. Mills (September): Primary screwworm reported as attacking cattle near Custer. (Det. by E. F. Knipling.)

California. F. C. Bishopp (August): Five larvae were submitted from necks of bears at Balboa Park, San Diego. This is an interesting host record. (Det. by E. F. Knipling.)

STABLEFLY (Stomoxys calcitrans L.)

Massachusetts. C. N. Smith (September 22): Annoying to persons on beaches and in the town of Martha's Vineyard near beaches.

Georgia. W. E. Dove (September 22): Coincidental with harvesting of peanuts in the vicinity of Valdosta, dogflies are now increasing in numbers to localized outbreaks.

Florida. W. E. Dove (September): By the latter part of August flies ranged from 350 to 500 per animal in the vicinity of Fort Walton, and from 20 to 25 per animal in the vicinity of Panama City, in northwestern Florida. On September 20, flies were scarce throughout the control area but were found breeding at either end of the control area in untreated material. In one of these locations animals averaged about 175 each and at the other place a lighthouse keeper experienced an outbreak.

Utah. G. F. Knowlton (August 30): Abundant at Snowville.

HORN FLY (Haematobia irritans L.)

Florida. F. C. Bishopp (September 13-14): Relatively scarce in western Florida. From 10 to 50 flies per head at present. One animal had 150 to 200 flies. Reported as much more numerous earlier.

COMMON CATTLE GRUB (Hypoderma lineatum DeVill.)

Texas. F. C. Bishopp and O. G. Babcock (September 5): No grubs were apparent in several dairy herds visited near San Angelo, Eldorado, Christoval, and Sonora.

GULF COAST TICK (Amblyomma maculatum Koch)

Florida. E. B. Blakeslee (September): Infestations are light but are commonly found at different places in northwestern Florida. Animals usually show from about one to five ticks each.

## HORSEFLIES (Tabanidae)

Florida. F. C. Bishopp (September 14): A few tabanids were observed on livestock in the vicinity of Bonifay. Reported as much more abundant and annoying to livestock a few weeks ago.

W. E. Dove (September 23): Two species, Tabanus atratus F. and T. lineola F., have been common about range animals during the last month and when there was an entire absence of the prodaceous wasp Stictia carolina F. T. atratus averaged two per animal and T. lineola increased to an average of about seven per animal.

Colorado. M. T. James (September 20): Horseflies were more troublesome than usual in the mountain parks west of Denver. In eastern Colorado the flies caused much less trouble, probably owing to the fact that the breeding grounds were flooded by unusually heavy rains.

Utah. G. F. Knowlton (September 1): T. punctifer O. S. is annoying at Yost.

## POULTRY

### FOWL TICK (Argas miniatus Koch)

Alabama. W. E. Dove (September 10): Has become established in Birmingham, where it has caused poultry to vacate houses. Some birds have died from the infestations.

## HOUSEHOLD AND STORED-PRODUCTS INSECTS

### TERMITES (Isoptera)

Nebraska. H. D. Tate (September 18): Reticulitermes tibialis Banks was reported from Pawnee and Lancaster Counties.

Utah. G. F. Knowlton, et al. (September 18): Termites reported as damaging houses at Smithfield and Provo.

Nevada. G. G. Schweis (September 20): Injury has been reported from a number of residents in Reno and, in some instances, damage has been severe.

### ANTS (Formicidae)

Florida. W. Mathis (September 13): Infestations of the little fire ant (Wasmannia auropunctata Roger) in citrus groves on the lower East Coast have built up to equal those existing before the freeze of January 1940.

J. R. Watson (September 22): Field of eggplant in Alachua County was nearly destroyed by ants eating the foliage and blossoms.

Mississippi. C. Lyle, et al. (September 25): Iridomyrmex humilis Mayr has been reported from the Grenada area and from Hinds, Monroe, and Prentiss Counties, while in Stone County a reinfestation of one town was reported after the ants had been eradicated more than 10 years. Specimens of Monomorium pharaonis L. were received from Harrison County on September 9. Specimens of Paratrechina longicornis Latr. were received from Harrison County on August 26 and September 17 and were reported as causing annoyance in homes. Also reported as numerous in stores and restaurants in one locality in Stone County. Specimens of Solenopsis xyloni McCook were received from Leflore County where they had invaded an office building. Also reported as troublesome in the Grenada area and the southeastern counties.

Louisiana. C. O. Eddy (September 25): The Argentine ant (I. humilis) has been reported as very annoying throughout Louisiana.

Nebraska. H. D. Tate (September 18): A specimen of Pharaoh's ant (M. pharaonis) from Lancaster County was submitted on August 17 with the report that it was very annoying in a house.

Utah. G. F. Knowlton (September 6): Ants causing annoyance in fruit rooms at Logan and Wellsville.

#### HOUSE CRICKET (Gryllus domesticus L.)

Wisconsin. E. L. Chambers (September): Abundant in several cities early in September, causing damage to draperies and furniture in stores.

#### SILVERFISH (Lepisma saccharina L.)

Georgia. T. L. Bissell (September 5): Reported as overrunning houses in Griffin.

Utah. G. F. Knowlton (September 6): Infesting a school building at Logan.

#### BOOKLOUSE (Liposcelis divinatorius Mull.)

Nebraska. H. D. Tate (September 18): Specimens were received from Cuming County on August 25; abundant in most of the rooms of a house.

#### GIANT HORNET (Vespa crabro germana Christ)

Pennsylvania. T. L. Guyton (September 16): A nuisance about a house in Bernville, Berks County.

Maryland. E. N. Cory (September 6): Reported from Annapolis.

#### GERMAN COCKROACH (Blattella germanica L.)

Rhode Island. B. Eddy (September 3): Usually rather rare, but found in one house in Providence.



Mississippi. C. Lyle (September 24): Reported as annoying in Adams, Hancock, Prentiss, and Tippah Counties.

Utah. G. F. Knowlton (September 17): Infesting a restaurant at Salt Lake City.

AUSTRALIAN COCKROACH (Periplaneta australasiae F.)

Arizona. R. A. Flock (September 10): Found in house at Benson, Cochise County. First record for the State.

BOXELDER BUG (Leptocoris trivittatus Say)

Pennsylvania. T. L. Guyton (September 16): Numerous at Camp Hill, Cumberland County.

New Jersey. E. P. Felt (September 24): Reported as swarming on trees and buildings on September 6 at Far Hills.

Maryland. E. N. Cory (September 12): Reported from Cumberland.

Virginia. G. J. Haeussler (September 2): Nymphs of various sizes and adults are feeding in great numbers on ash trees adjacent to a dwelling, and swarming into the house and causing considerable alarm and annoyance.

A. M. Woodside (September 23): Becoming a nuisance in dwellings at Staunton. Not so common as in previous years.

H. G. Walker and L. D. Anderson (September 24): Boxelder tree in Craddock was found to be heavily infested and several reports of abundance have been received from other parts of the Norfolk area..

Ohio. T. H. Parks (September 23): Very plentiful generally. Specimens submitted with the report that they are a nuisance in lawn and about house.

Indiana. J. J. Davis (September 23): Reported from all parts of the State.

Michigan. R. Hutson (September 29): Numerous at Sturgis, Breedsville, Ann Arbor, Kalamazoo, Portland, Grand Ledge, Detroit, Tecumseh, Hillsdale, Montrose, and Chesaning.

Wisconsin. E. L. Chambers (September): Very abundant in the southwestern part of the State. Also observed in large numbers at one location in Waukesha County.

Nebraska. H. D. Tate (September 18): Specimens received from Burt, Dodge, and Dixon Counties during the period from August 14 to September 15.

Utah. G. F. Knowlton (September 18): Again becoming annoying in houses in northern Utah, owing to cool weather, and foliage at Logan is infested.



PACIFIC DRAIN FLY (Psychoda pacifica Kincaid)

Utah. G. F. Knowlton (September 6): Adults have been emerging from wash-basin drain pipes in Logan and Salt Lake City.

BEAN WEEVIL (Acanthoscelides obtectus Say)

Missouri. L. Haseman (September 26): Reported by growers throughout the State. In central Missouri the insect has been quite abundant in beans that ripened in September.

DRUG STORE WEEVIL (Stegobium paniceum L.)

Rhode Island. B. Eddy (September 19): Found in corn meal stored in a warehouse.

SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis L.)

Maryland. E. N. Cory (September 6): Reported from Baltimore.

Illinois. W. P. Flint (September 24): Has become very abundant in bins of shelled corn held on farms and in storage. Many bins shelled in 1939 and 1940 are heating from the presence of this beetle.

Nebraska. H. D. Tate (September 18): Specimens submitted from Johnson County on August 25 and from Pierce County on September 8. Reported from Keith, Saunders, Knox, and Brown Counties on August 28 and on September 6, 12, and 13, respectively.

Minnesota. M. W. Wing (September 15): Reported as present in a store at Park Rapids.

Wyoming. B. T. Snipes (July 28): Present in stored grain and causing light damage at Riverton, Fremont County.

